

Design Process Outline (DPO)

(Abbreviations may be found in the DPO Index)

Project No:	Control No:	Letting Date:
Project Location:		
Designer:	Roadway Design Unit Head:	

SCOPING PHASE (5200)

INITIAL PROJECT REVIEW AND SETUP – Payroll Activity 5200 (Clarity Task Code 5282)

Information Supplied:

- Signed Highway Improvement Programming Request (Form DR-73)
- Preliminary Pavement Determination (**M&R** Task Code 5258)
- Traffic Engineering Recommendations (**Traffic** Task Code 5256)
- Initial Purpose & Need Statement (get from Scoping Document)
- Initial Project Description (get from Scoping Document)
- Project Scoping Document (part of signed Form DR-73)
- As-Built Plans
- Photo Log
- Clarity Schedule (**Program Management Section** Task Code 5254)
- Stormwater Treatment Form A – “Project Development” (**Roadside Stabilization Unit (RSU)** Task Code 5278)

Action:

- Meet with the **RD Survey Coordinator** to determine the survey needs of the project
- For projects without survey, the **RD Unit Head** will obtain the as-built plans and transmit them to the **Highway Total Station Coordinator** in **Geodetic Surveys** to create the project alignment
- **RD Unit Head** review/adjust Clarity schedule

Submittals:

- Send notice to Clarity that the activity is done

DESIGN TASK REQUIRED **BEFORE** BEGINNING PIH PHASE

ENVIRONMENTAL REVIEW MEETING 10 (Exhibit A) – Payroll Activity 5300 (Clarity Task Code 5284)

Note: This is a **Roadway Design (RD)** meeting that **shall** be held for **all** New & Reconstructed projects prior to “Preliminary Roadway Design”. Consult with the **RD Environmental Liaison Engineer** to determine the need for Meeting 10 on 3R projects.

PLAN-IN-HAND PHASE (5300)

PRELIMINARY ALIGNMENT DESIGN FOR BRIDGE HYDRAULICS – Payroll Activity 5300 (Clarity Task Code 5336)

Action:

- Preliminary design of vertical and horizontal alignments through bridge areas

Submittals:

- Proposed & existing alignments to **Bridge Hydraulic Unit** for analysis

PRELIMINARY ROADWAY DESIGN - Payroll Activity 5300 (Clarity Task Code 5350)

Request Information:

- Earthwork Balance Factor from the **DE**
- Accident Report (May be on Falcon). Request Sheet for Accident Summary (Form DR-312): Rate Analysis, Collision Diagram, & Spot Map (3 yr). This report is for **NDOR** use only & shall not be shared with the general public. (**Traffic** Task Code 5224)
- Traffic Counts, Design Year Traffic Data
- **District/City** review of property access during construction (ADA compliant?) (RDM – 2006 Chapter Ten, Section 10.B)
- Soils information for MS4 Stormwater Treatment BMP sites

Information Supplied:

- Highway Improvement Programming Request (Form DR-73)
- Engineering Review or Initial Project Review and Setup - Meet with the author of this document if/as needed
- Approved Design Relaxations/Exceptions
- CADD Files (Plotted Survey, **PDU** Task Code 5330)
 - Aerials, Topography, Alignment, Location Map
- Correspondence File
- 9x9 Aerials
- As-Built Plans
- Roadview Explorer
- GeoPak Files
- Preliminary Pavement Determination from **M&R** (**M&R** Task Code 5258)
- Bridge Data Sheet (TS&L) (**Bridge** Task Code 5346)
- Bridge Hydraulic Study (**Bridge** Task Code 5342)
- **FEMA** Flood Plain Maps
- Initial Wetland Determination (**P&PD Environmental Section** Task Code 5264)
- Prelim. Landscape Concept (**P&PD Environmental Section** Task Code 5360)
- Threatened & Endangered Species (T&E) Agency Comments
- Historic Project Review (**P&PD Environmental Section** Task Code 5268)
- **Traffic** Recommendations (**Traffic** Task Code 5256)
- Lighting Appraisal (**RD Lighting Unit** Task Code 5274)

- Right-of-Way Ownership Plans (**R.O.W.** Task Code 5348)
- Roadside Stabilization Appraisals (**P&PD Environmental Section** Task Code 5362)

Action:

- Determine the Design Standard and Typical Section using Nebraska Minimum Design Standards and the RDM
- Complete Form DR-76, Roadway Design – Principal Controlling Design Criteria, and route for signatures
- After Form DR-76 has been returned with signatures, request any design exceptions or relaxations that may be needed. A request for a relaxation of the Minimum Design Standards to the Board of Public Roads Classifications and Standards should be presented as a PowerPoint slide show. Requests to the Secretary of the Board to place your project on the agenda shall be submitted at least two weeks before the meeting and will include the PowerPoint slide show (to comply with the Open Meeting Act) and a time estimate for the presentation
- e-mail the **Railroad Liaison Engineer** with the Project Control Number, Project Number, Designer, and Designer's Phone Number
- Complete the "Public Meeting Checklist" (Exhibit C)
- Fill out the preliminary Waterway Permit Data Sheet (Form DR-290) and justification for impacted wetlands and/or channel changes (why avoidance was not possible) and place on Falcon. Send notice to the **Environmental Program Manager** in **P&PD** (Task Code 5353)
- Conduct "Environmental Review Meeting 20" (Exhibit A) (Task Code 5378)
- Conduct Alternative Design Analysis (Task Code 5366)
- Complete the Waterway Permit Data Sheet (Form DR-290)
- Conduct Meeting A (CADD Coordination Policy, Version 8, <http://www.nebraskatransportation.org/roadway-design/downloads.htm>)
- Check for Right-of-Way Permits on CICS (Exhibit D)
- Design vertical and horizontal alignments
- Design intersections/frontage roads; check geometry with **Traffic**
- Perform preliminary earthwork computations
- Delineate and compute drainage areas
- Determine Q values and size drainage structures
- Preliminary design of culverts, storm sewers, special ditches and median drains
- Present access control recommendations to **Access Control Group** (Exhibit D)
- Confirm if Right-of-Way Survey is needed/ordered
- Complete the "Erosion Control Plan-in-Hand Checklist" (Exhibit F)
- Draft Covenant Agreements - City/County: Request for Agreement (Form DR-65) (Include Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the Drainage and Erosion Control Manual (*Drainage Manual*), Chapter Three, Section 7.A.5).
- Review by **RD Hydraulics Engineer** if a Floodway/Floodplain is near project
- Constructability/Phasing Meeting (Exhibit E). **Early Bridge involvement is critical**

- Conduct FHWA Oversight Coordination Meeting #1 (Task Code 5382) (Full oversight projects only)
- Review and Complete Stormwater Treatment Form A – “Project Evaluation” (in Falcon under Roadway Correspondence)
- Identify all Stormwater Outfall locations and determine Priority Stormwater Outfalls, initiate Stormwater Treatment Form B – “Treatment BMPs” (See the *Drainage Manual*, Chapter Three, Section 5)
- Calculate Water Quality Volume and Discharge Rate at Priority Stormwater Outfall locations (See the *Drainage Manual*, Chapter Three, Section 6)
- Select Stormwater Treatment BMPs at outfall locations and complete initial design (See the *Drainage Manual*, Chapter Three, Section 7)
- Coordinate with Adjacent MS4 Communities concerning selection and design of Stormwater Treatment BMPs (See the *Drainage Manual*, Chapter Three, Section 7.A.3)

Additional Information/Action by Others:

- **Traffic:** Studies, Signals, Signing, etc.
- **RD Hydraulics:** Drainage Structures and Box Culverts
- **P&PD:** Utilities
- **RSU:** Review of Stormwater Treatment Form B – “Treatment BMPs”
- **Railroad Liaison:** Preliminary Plan Review (Railroad Liaison Task Code 5358)
- **M&R:** Soils Investigation
- **M&R:** Retaining Walls/Settlement
- Additional Survey (Form DR-150): For Hydraulic Surveys or missing items (e.g. sewers, water lines, center pivot, utilities, or to extend cross-sections or pavement shots)
- Aerial Photography - Request for Aerial Photography (Form DR-474)
- **Bridge:** Bridge/Bridge Hydraulics/Bridge size culverts
- **R.O.W.:** Relocation Concept Study (**R.O.W.** Task Code 5356)
- **District:** District Plan Review No. 1 (**Program Management** Task Code 5370)
- **District:** Detour Location/ADA Access during construction (RDM – 2006 Chapter Ten, Section 10.B)

Reviews:

- Scope of project with **RD Unit Head** and **ADE** (invite **Roadway Design Engineer, DE, Environmental Program Manager, Environmental Analyst Supervisor, Roadside Stabilization Manager**, and/or **Railroad Liaison Engineer** as required). Review Clarity schedule for content equal to scope of work to address “Scope Change Window”. The Environmental Units will determine whether or not they want to be invited to the PIH at this meeting
- Review/revise:
 1. Purpose & Need Statement
 2. Project Description
 3. Project Scoping DocumentKeep all versions on Falcon, date and save any changes as version R1, R2, etc.
- Preliminary Pavement Determination Review (**M&R** Task Code 5364)

- “Design Checklist” (Exhibit B) with **RD Unit Head**
- **RD Unit Head** review and approval of preliminary Stormwater Treatment BMP design; forward Form B – “Treatment BMPs” to the **RSU**
- Ditch grades and erosion control methods with the **P&PD Roadside Stabilization Manager**
- Sidewalk design with **Traffic Engineer & Traffic Analysis Engineer**; discuss crossing/signal/push button placement
- Special information from support units and other divisions
- **Covenant Relinquishment Agreement (CRA)** for revising (Exhibit G) (include Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Design for content and quality by **RD Unit Head**

Submittals:

- Agreements: Request for Agreement (Form DR-65)
- Back-up Preliminary Roadway Design to Falcon
- Stormwater Treatment within MS4 Communities Form B – “Treatment BMPs”
- Send notice activity is done:
 - **RD Unit Head**
 - **RD Lighting Unit Head**
 - **Bridge Designer**
 - **DE**
 - **Design Plans Manager**
in **PDU**
 - **P&PD Roadside Stabilization Manager**
 - **Traffic Engineer**
 - **PSS Project Manager**
(See Exhibit I, Sheet #2)
 - Clarity

COST UPDATE #1 - Status 30 – Payroll Activity 5300 (Clarity Task Code 5368)

Action:

- Check with **RD Unit Head** for funding split (e.g. City or Railroad)
- Complete estimate of plan quantities:
 - Project Information Sheet (Form DR-342)
 - Project Quantity Sheet (Form DR-343)

Reviews:

- “Cost Estimate Checklist” (Exhibit H)
- Review of estimate by **RD Unit Head**

Submittals:

- Estimate to **Highway Estimating Unit** (in **Construction**) & receive Cost Update #1 prior to PIH
- Clarity

PLAN-IN-HAND (PIH) – Payroll Activity 5300 (Clarity Task Code 5380)

Information Supplied:

- Wetland Delineation Plans (2W) and Mitigation Site Priority List
- Preliminary Design Plans from **PDU** (**PDU** Task Code 5354)

Action:

- Request that **PDU** plot PIH plans
- Assemble PIH plans (RDM - 2006 Chapter Eleven):
 - PIH Title Sheet (include Location Map & Traffic ADT)
 - 2L Sheets
 - P & P Sheets
 - Culvert Sections
 - Typical Section
 - X-Sections
 - 2W/2A Sheets
 - Right-of-Way Ownership Plans
 - Wetland information
- Request that District Maintenance inspect the culverts on the project (send request with PIH plans transmittal)
- Complete the T&E Checklist and place on Falcon; send notice to the **Environmental Program Manager** in **P&PD** (Task Code 5395)
- Conduct in-field review with Plans-In-Hand (“Plan-In-Hand Checklist”, Exhibit J)
- Confirm or update the Project Description / Purpose & Need on Falcon (Task Code 5396)
- Review the completed “Public Meeting Checklist” (Exhibit C) from Clarity Task 5350
- Conduct Public Information Meeting, if indicated (Exhibit C)
 - Provide **PDU** with information for mosaic and displays (“Guidelines for Public Meetings”, Exhibit L)
 - Provide the **Communications Division Public Involvement Coordinator** with completed Public Meeting Notice Worksheet (Form DR-356)
- Coordinate with **P&PD Utilities Section**, discuss conflicts/resolution

Reviews:

- Project Scoping Document (save all versions on Falcon, date and save any changes as version R1, R2, etc.)
- Design for content and quality by **RD Unit Head**

Submittals:

- Back-up PIH Design to Falcon
- Send notice activity is done to **Design Plans Manager** in **PDU**
- Send notices PIH Plans are available (Exhibit I)
- Transmit PIH plans at least 2 weeks prior to the PIH date (Railroad personnel require 5 weeks notice), see “Distribution of Plans” (Exhibit I); distribute 5 weeks prior to Public Information Meeting when held concurrently w/PIH

- Place the completed “Erosion Control Plan-in-Hand Checklist” (Exhibit F) on Falcon and send notice to the **P&PD Wetland Manager** and **Roadside Stabilization Manager**
- Submit FAA Form 7460-1 to the **Nebraska Department of Aeronautics**, if required (“Airway Highway Clearances”, Exhibit R)
- Send notice to Clarity the PIH has been conducted

PIH REPORT – Payroll Activity 5300 (Clarity Task Code 5388)

Information Supplied:

- Preliminary Utility Inspection (**P&PD Utilities Section** Task Code 5374)
- Mitigation Concept Plans (**P&PD Environmental Section** Task Code 5390)
- Bridge Borings (**M&R** Task Code 5372)
- Railroad Company Approval (**Railroad Liaison** Task Code 5384)
- Noise Report Determination (**P&PD Noise & Air Unit** Task Code 5386)
- Preliminary Project Agreements (**P&PD Agreements** Task Code 5340)
(Including Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Preliminary Relinquishment Agreements (**P&PD Agreements** Task Code 5338)
(Including Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)

- (1) Combine comments/changes from PIH to one set of plans and label as PIH Set
- (2) Conduct post PIH field inspection review – RD personnel office review
- (3) The RD Unit Head should review the Scoping Document and respond to all of the items where it is indicated that resolution will occur at the plan-in-hand.
- (4) Review any changes to the project with the **P&PD Environmental Program Manager**
- (5) Review the completed “Public Meeting Checklist” (Exhibit C) from Clarity Task 5350 for changes approved by **RD Unit Head** and **ADE**
- (6) Prepare PIH Report (“Plan-In-Hand Report Outline”, Exhibit K)
- (7) Review PIH Report with **RD Unit Head**
- (8) Submit PIH Report to Falcon and to the **ADE** for routing
- (9) Revise the routed PIH Report as needed
- (10) Review/revise Project Description and Purpose & Need Statement w/**RD Unit Head** (save all versions on Falcon, date and save any changes as version R1, R2, etc.)
- (11) Submit revised PIH Report to the **ADE** for distribution
- (12) After the PIH Report has been routed, change the date of the report to the approval date and place the PIH Report in Falcon
- (13) If applicable, request Design Relaxations/Exceptions (RDM - 2006 Chapter One)

PUBLIC HEARING PHASE (5400)

FUNCTIONAL DESIGN – Payroll Activity 5400 (Clarity Task Code 5428)

NOTE: Send a note to inform the **Design Plans Manager** if this activity will not be done by **PDU**.

Request Information:

- Accident Studies, Request Sheet for Accident Summary (Form DR-312)
- MS4 landscaping design (if applicable) (See the *Drainage Manual*, Chapter Three, Section 8.A)

Information Supplied:

- Signed Covenant Agreements from Clarity Task 5350
- Final Pavement Determination (**M&R** Task Code 5406)
- Soils Foundation Report (**M&R** Task Code 5452)
- Soils, Situation, and Subgrade Report (**M&R** Task Code 5450)
- Final Delineation & Mitigation Plans (**P&PD Environmental Section** Task Code 5440)
- Roadside Stabilization PIH Review (**P&PD Environmental Section** Task Code 5426)
- Landscape Concept & PIH Review (**P&PD Environmental Section** Task Code 5424)
- Functional Design Plans from **PDU** (**PDU** Task Code 5432)

Action:

- Make changes, if needed, as the result of the Noise Report – Keep **R.O.W. Design, Lighting, Traffic, Wetlands**, etc. informed.
- Revise design according to Public Information Meeting (if held), the PIH inspection, and the approved PIH Report comments
- Conduct Meeting B (CADD Coordination Policy, Version 8)
- Design details to be considered (“Design Checklist”, Exhibit B)
- Schedule a meeting with the **City, Irrigation District**, etc. to determine conflicts and if rehabilitation will be a part of the project
- Present access control design to **Access Control Group**, if needed (Exhibit D)
- Request that **PDU** plot Functional Plans
- Conduct “Environmental Review Meeting 30” (Exhibit A) (Task Code 5454)
- Constructability/Phasing: Consider holding a meeting (Exhibit E)
- Complete MS4 Treatment BMP design (See the *Drainage Manual*, Chapter Three, Section 8)
- MS4 Treatment BMP Plan Labeling (See the *Drainage Manual*, Chapter Three, Section 8.D)

Additional Information/Action by Others:

- District Plan Review No. 2 (**Program Management** Task Code 5436)
- Traffic Signals/Studies/Signing
- Lighting Layout (**RD Lighting Unit** Task Code 5422)
- Detour Location
- Drainage Structures and Box Culverts

- Retaining Walls
- Utilities
- Additional Survey (DR Form 150): For Hydraulic Surveys or missing items (e.g. water lines, center pivots, sewers, utilities, or to extend cross-sections or pavement shots)
- Request for Aerial Photography (Form DR-474)
- **Bridge**
- **Bridge Hydraulics Unit**
- **R.O.W.**

Reviews:

- Review/revise Project Description and Purpose & Need Statement (save all versions on Falcon, date and save any changes as version R1, R2, etc.)
- Avoidance & Minimization Review w/**P&PD Environmental Program Manager**
- **Covenant Relinquishment Agreement** (CRA) for revising (Exhibit G) (Include Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Review by **RD Hydraulics Engineer** if a Floodway/Floodplain is near project
- “Design Checklist” (Exhibit B) with **RD Unit Head**
- Review of design for content and quality by **RD Unit Head**
- MS4 Form B – “Treatment BMPs” review by **RD Unit Head**

Submittals:

- Selected Final Alignment: Send through **RD Unit Head** to **Photogrammetry** and **PDU** to update survey (offsets, culvert data, & data sheets) & input file to **R.O.W. Pre-design Supervisor**
- Back-up Functional Design to Falcon
- Revised Waterway Permit Data Sheet (Form DR-290), if needed, to **P&PD Wetlands Unit**
- Send notice activity is done to:
 - **Design Plans Manager**
 - **RD Unit Head**
 - **Traffic Engineer**
 - **Clarity**
 - **PSS Project Manager**
(See Exhibit I, Sheet #2)

COST UPDATE #2 - Status 40 – Payroll Activity 5400 (Clarity Task Code 5446)

Action:

- Check with **RD Unit Head** for funding split (e.g. City or Railroad)
- Complete estimate of plan quantities:
 - Project Information Sheet (Form DR-342)
 - Project Quantity Sheet (Form DR-343)

Reviews:

- “Cost Estimate Checklist” (Exhibit H)
- **RD Unit Head** review of estimate

Submittals:

- Estimate to **Highway Estimating** (in **Construction**) & receive Cost Update #2
- Clarity

DESIGN PREP FOR PUBLIC HEARING & HIGHWAY COMMISSION Payroll Activity
5400 (Clarity Task Code 5434)

Information Required Before Scheduling a Public Hearing:

- Signed Draft **E**nvironmental **I**mpact **S**tatement (EIS) or **E**nvironmental **A**ssessment (EA)
- Signed City **C**ovenant **A**greement (CA) (if applicable) (Including Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Signed **C**ovenant **R**elinquishment **A**greement (CRA) (if applicable) (Including Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. see the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Noise Study (if a Noise Study was conducted)

Information Supplied:

- Air Photo Display
- Hearing Transcript

Action:

- Complete Public Meeting Notice Worksheet (Form DR- 356) & send to **Public Hearing Officer** in **Communications**
- **RD Unit Head** review/update of the project on the web (approximately every six months)
- Complete “Guidelines for Public Meetings” (Exhibit L) & give to **PDU**
- Prepare the Engineering Statement and the Public Hearing presentation
- Conduct Design Public Hearing Dry Run (Exhibit M) prior to scheduling Public Hearing
- Take the press release to the Public Hearing Dry Run for approval
- Request **Public Hearing Officer** in **Communications** schedule Public Hearing
- Conduct Design Public Hearing (Exhibit L)
- Prepare Highway Commission Statement (Exhibit N)
- Request that the **Executive Secretary** of the **Highway Commission** inform the local government(s) of the Highway Commission Meeting
- Notify the **Roadway Design Engineer** that the project is ready to present to the **Highway Commissioners**
- **ADE**: present Highway Commission Statement to **Highway Commission** for approval

Reviews:

- Review/revise Project Description, Purpose & Need Statement, and Scoping Document (save all versions on Falcon, date and save any changes as version R1, R2, etc.)
- Comments and plans from Public Information Meeting (if held) and label plans as “Public Information Meeting Plan Set”
- Transcript and consolidate comments and plans from Design Public Hearing and label plans as “Design Public Hearing Plan Set”

- Review and analyze the citizen comments received at the Public Hearing and **respond** to the originator of the comment (cc responses to the **NEPA Project Manager** and the **Public Involvement Coordinator**)

Submittals:

- Transmit Functional Plans (“Distribution of Plans”, Exhibit I)
- Hearing Statement
- Highway Commission Statement
- Expressway System projects: send Location Map and Expressway Map to the **Executive Secretary** of the **Highway Commission** 10 days before the Commission meeting
- Send notice that Functional Plans have been transmitted to:
 - **DE**
 - **Traffic Engineer**
 - **Design Plans Manager**
 - **P&PD Wetlands Unit Head**
 - **Communication Division**
 - **Public Hearing Officer**

FINAL DESIGN PHASE (5500)

FINAL DESIGN – Payroll Activity 5500 (Clarity Task Code 5508)

Information Required Before Beginning Final Design (Federal-Aid Projects):

- Final EA – **Finding Of No Significant Impact (FONSI)** (**P&PD Environmental Section** Task Code 5482) (See RDM - 2006 Chapter Thirteen, Section 4)
- Final EIS - **Record Of Decision (ROD)** (**P&PD Environmental Section** Task Code 5480) (RDM - 2006 Chapter Thirteen, Section 4)

Information Supplied:

- Project Approval from **Highway Commission** and **Governor**
- Final 4F Statement (**P&PD Environmental Section** Task Code 5476) (RDM - 2006 Chapter Thirteen, Section 4)
- Preliminary Landscaping Plans (**P&PD Environmental Section** Task Code 5466)
- Roadside Stabilization Erosion Control Design (**P&PD Environmental Section** Task Code 5528)
- Roadside Stabilization Erosion Control Computations (**P&PD Environmental Section** Task Code 5572)
- Final Pavement Determination (**M&R** Task Code 5504)
- **Traffic** Review (**Traffic** Task Code 5464)
- Lighting Plans, Computations, & Specifications (**Lighting Unit** Task Codes 5524 and 5552)
- Approved Bridge Data Sheet (**Bridge** Task Code 5460)
- Final Bridge Plans & Specifications (**Bridge** Task Code 5556)
- Roadway Design Plans - **PDU** (**PDU** Task Code 5532)

Action:

- Design geometry, grades, and cross-sections for driveways, intersections, frontage roads, etc. (“Design Checklist”, Exhibit B)
- Revise impacted wetland areas if/as needed
- Prepare geotechnical plans (wick drains, instrumentation, etc.)

- Conduct “Environmental Review Meeting 40” (Exhibit A) (Task Code 5512)
- Request seed mixtures from the **P&PD Roadside Development Unit** approximately two months prior to **PS&E** turn-in
- Request Special Plans from **Bridge Special Projects Unit** (Box Culverts using the Concrete Box Culvert Request Sheet, Form DR- 67; Retaining Walls, Headwalls etc., using the Custom Special Plan Request Sheet, Form DR-66) approximately two months prior to PS&E turn-in (Task Code 5516)
- Request that **PDU** plot Final Design Plans for Final Design Review
- Constructability/Phasing Meeting (Exhibit E): Review Bridge Plans, verify vertical clearance
- Conduct FHWA Oversight Coordination Meeting #2 (Task Code 5560) (Full oversight projects only)

Additional Information/Action by Others:

- District Final Plan Review (**Program Management Task Code 5580**)
- **District:** Detour Locations
- **Railroad Liaison:** Drainage, Constructability, Crossings, etc.
- **M&R:** Soils/Foundation investigation needed
- **P&PD:** Utilities
- Additional Survey (Form DR-150): For Hydraulic Surveys or missing items (e.g. water lines, center pivot, sewer pipe, utilities, or to extend cross-sections or pavement shots)
- Request for Aerial Photography (Form DR-474)
- **R.O.W.**

Reviews:

- Project Description, Purpose & Need Statement, and Scoping Document (save all versions on Falcon, date and save any changes as version R1, R2, etc.). If changes or revisions are required notify the **Environmental Section Manager** in **P&PD immediately**
- Designer check of lighting pole locations
- Requests & changes recommended in the District Final Plan Review
- Review by **RD Hydraulics Engineer** if a Floodway/Floodplain is near the project
- Hearing Plans, transcript, notes, and comments
- **P&PD Roadside Stabilization Unit Head** - Erosion control w/cross-sections and MS4 Treatment BMPs (Task Code 5528)
- “Earthwork Checklist” (Exhibit O)
- “Design Checklist” (Exhibit B) with **RD Unit Head**
- Final Design Plans with **RD Unit Head**

Submittals:

- Send phasing plans to **Traffic** for use in producing traffic control plans
- Back-up roadway design to Falcon & Send notice Clarity Task 5508 is done to:
 - **R.O.W. Design**
 - **ADE and RD Unit Head**
 - **District: DCE & Project Manager**
 - **Design Plans Manager**
 - **P&PD Roadside Stabilization Unit Manager**
 - **P&PD Traffic Analysis** - traffic forecast needs updating
 - **R.O.W. Relocations** - with comment about business and home relocations
 - **PSS Project Manager** (See Exhibit I, Sheet #2)
 - Clarity
- Transmit early acquisition Final Design Plans to **R.O.W.** (when applicable)

FINAL DESIGN REVIEW – Payroll Activity 5500 (Clarity Task Code 5576)

Information Supplied:

- Final Design Plans from **PDU** (**PDU** Task Code 5532)
- Final Landscape Design & Specifications (**P&PD Environmental Section** Task Code 5568)

Request Information:

- Request tree/stump counts from the **District**

Reviews:

- Design for content and quality by **RD Unit Head**
- Plans with **RD Unit Head** using “Design Checklist” (Exhibit B)
- Conduct traffic review (pavement marking plans, special plans, signals, etc.). Tell **Traffic** if the project has centerline and/or edge line rumble strips – this may change the type of striping specified/required on the project.
- MS4 Treatment BMP labeling on Final Design Plans with **RD Unit Head** (See the *Drainage Manual*, Chapter Three, Section 8.D)

Submittals:

- Back-up Final Design to Falcon (include culvert sections)
- Send notice activity is done to:
 - **Design Plans Manager**
 - **R.O.W. Designer**
 - **RD Lighting Unit Head**
 - **P&PD Environmental Section Manager**
 - **P&PD Utilities Engineer**
 - **Traffic Engineer**
 - **DE**
 - Clarity
- Request that **PDU** plot Final Design Plans showing the limits of construction
- Transmit Final Design Plans (“Distribution of Plans”, Exhibit I)
- Transmit asphalt surfacing areas to **M&R**

COST UPDATE #3 - STATUS 45 – Payroll Activity 5500 (Clarity Task Code 5584)

Information Supplied:

- Receive asphalt surfacing quantities from **M&R**

Action:

- Check with **RD Unit Head** for funding split (e.g. City or Railroad)
- Complete estimate of plan quantities:
 - Project Information Sheet (Form DR-342)
 - Project Quantity Sheet (Form DR-343)
- Update the City Financial Agreement (Request for Agreement, Form DR-65) (Include Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)

Reviews:

- “Cost Estimate Checklist” (Exhibit H)
- **RD Unit Head** review of estimate

Submittals:

- Estimate to **Highway Estimating Unit** (in **Construction**) & receive Cost Update #3
- Send City Financial Agreement to the **DE**
- Clarity

DESIGN REVIEW OF SUPPORT PROCESSES – Payroll Activity Varies (Clarity Task Code Varies)

Reviews:

- Agreements:
 - City/County (Include MS4 Maintenance, if required)
 - Railroad
 - Irrigation
 - NRD
- Wetlands
- Utilities
- Right-of-Way
- Geotechnical
- Phasing
- MS4 Construction Phasing (See the *Drainage Manual*, Chapter Three, Section 8.B)
- Promises
- Final Relinquishment Agreement (Exhibit G) (Include Stormwater Treatment MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Working days and verify letting date

Action:

- Conduct Meeting C (CADD Coordination Policy, Version 8)

ROW ACQUISITION PHASE (5600)

PRELIMINARY RIGHT-OF-WAY PLAN REVIEW – Payroll Activity 5600 (Clarity Task Code 5610)

Information Supplied:

- Preliminary Right-of-Way Plans from Right-of-Way Design (**R.O.W.** Task Code 5602)
- Final Soils Foundation Review (**M&R** Task Code 5604)

Reviews:

- Preliminary Right-of-Way Plans by designer and **RD Unit Head**
- The completed “Public Meeting Checklist” (Exhibit C) from Clarity Task 5350 for changes approved by the **RD Unit Head**, **ADE**, and **Roadway Design Engineer**
- Review MS4 Treatment BMP labeling on ROW plans with **RD Unit Head** (See the *Drainage Manual*, Chapter Three, Section 8.D)

Action:

- Finalize the Waterway Permit Data Sheet (Form DR-290) and place on Falcon at: Projects\#####\roadway\correspondence\projdevcorr\wetcorr and send notice to the **Environmental Program Manager** in **P&PD** (Task Code 5607). E-mail the completed form and requested attachments to Lori Ellison and the EPU Biologist in **P&PD** so that the permit process can be completed
- Conduct “Environmental Review Meeting 50” (Exhibit A) (Task Code 5608)
- Conduct “Preliminary Right-of-Way Plan Review Meeting” (Exhibit P). Document decisions and responsible party - send to attendees and cc the **ADE**

Additional Information/Action by Others:

- **Traffic:** Traffic Signal and Permanent Guide Sign Locations

Submittals:

- When requested by **Railroad Liaison**, add the proposed Railroad Easements to the cross-sections and then submit to the Railroad Company through **Railroad Liaison Engineer**

DESIGN PLANS TO UTILITY SECTION (See Exhibit Q) – Payroll Activity 5600 (Clarity Task Code 5614)

Information Supplied:

- Right-of-Way Appraisal Plans (**R.O.W.** Task Code 5612)

Action:

- Request that **PDU** plot the Utility Plans
- Contact the **P&PD Utility Coordinator** and discuss the project

Reviews:

- Right-of-Way Appraisal Plans

Submittals:

- Transmit the latest reproducible plans to **P&PD Utility Section** (Exhibit Q)
 - Send Notice Clarity Task 5614 is done to appropriate **PSS Project Manager** (See Exhibit I, Sheet #2)

PRE-APPRAISAL MEETING – Payroll Activity 5600 (Clarity Task Code 5620)

Information Supplied:

- Right-of-Way Appraisal Plans (**R.O.W.** Task Code 5612)

Action:

- Conduct Information Meeting (Pre-Appraisal), if warranted
 - Provide **Public Hearing Officer** in **Communications** with completed Public Meeting Notice Worksheet (DR Form 356)
 - Provide **PDU** with information for mosaic and displays (“Guidelines for Public Meetings”, Exhibit L)
- Schedule/Conduct Information Meeting (Pre-Appraisal), contact **Public Hearing Officer** in **Communications**

FINAL PLANS PHASE (5700)

FINAL DESIGN MODIFICATIONS – Payroll Activity 5700 (Clarity Task Code 5705)

Information Supplied:

- Roadside SWPPP Development (**P&PD Environmental Section** Task Code 5760)
- Final Green Sheet (**P&PD Environmental Section** Task Code 5740)
- Final Asphalt Computations & Typical Sections (**M&R** Task Code 5725)
- Utility Plans & Computations (**P&PD Utility Section** Task Code 5660)
- Right-of-Way Negotiation Plans (**R.O.W.** Task Code 5636)
- Traffic Control Plans (**Traffic** Task Code 5745)

Action:

- Make changes, if needed, as the result of appraisal and negotiation (Note: if the property in question is in condemnation proceedings, advise **Legal**)
- Make changes, if needed, as a result of utility conflicts – Keep **R.O.W., Lighting, Traffic, Wetlands**, etc. informed
- Conduct “Environmental Review Meeting 60” (Exhibit A) (Task Code 5770)

Additional Information/Action by Others:

- Landscape Plan & Specification Review (**P&PD Environmental Section** Task Code 5750)
- Final Roadside Stabilization Review (**P&PD Environmental Section** Task Code 5755)

Reviews:

- Project Description, Purpose & Need Statement, and Scoping Document (save all versions on Falcon, date and save any changes as version R1, R2, etc.). If changes or revisions are required notify the **Environmental Section Manager** in **P&PD immediately**
- **District/City** review of property access during construction (ADA Compliant?) (RDM - 2006 Chapter Ten, Section 10.B)
- Requests/changes as a result of appraisal and negotiation
- “Design Checklist” (Exhibit B) with **RD Unit Head**
- Design for content and quality by **RD Unit Head**

- Review/Conduct rehabilitation meeting with **Utilities, District, and City**

Submittals:

- Send notice/submittals of design changes to parties involved:
 - **R.O.W.**
 - **City/County**
 - **Lighting Unit Head**
 - **Traffic Engineer**
 - **P&PD Utilities Section**
 - **P&PD Wetland Unit Head**
 - **Railroad Liaison Engineer**
 - **Construction Estimating Unit Manager**
 - **DE**
- Send plans and final surfacing areas to **M&R Estimates** for final asphalt surfacing computations
- Design changes to **PDU** (**PDU** Task Code 5765)

FINAL PLANS PACKAGE & REVIEW FOR P.S. & E. - Payroll Activity 5700 (Clarity Task Code 5790)

Request Information:

- Ask the **DCE** whether “Construction Surveying” and “Re-establish Property Corners” will be performed by State forces or bid as part of the contract.

Information Supplied:

- Right-of-Way Certificate (**R.O.W.** Task Code 5666)
- Railroad Agreements (**Railroad Liaison** Task Codes 5640, 5644, & 5648)
- Lighting Final Plans Package (**Lighting Unit** Task Code 5790)
- Status of Utilities Report (**P&PD Utilities Section** Task Code 5735)
- Asphalt Surfacing Special Provisions (**M&R** Task Code 5730)
- 2-K Sheets (**M&R** Task Code 5720)
- Final Project Agreements (**P&PD Agreements Section** Task Code 5715) (Including Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Final Relinquishment Agreements (**P&PD Agreements Section** Task Code 5710) (Including Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)

Action:

- Finalize design details and computations (e.g. guardrail)
- Finalize Special Provisions and Special Prosecution & Process
- Calculate % of work on railroad right-of-way within 50 feet of the centerline of the nearest railroad track (RDM - 2006 Chapter Two, Section 21.B)
- Calculate % of work on railroad right-of-way outside of the first 50 feet from the centerline of the nearest railroad track (RDM - 2006 Chapter Two, Section 21.B)
- Calculate and split out quantities per Funding Group
- PS&E Forms: PS&E Required Sheet (Form DR-280), Length Sheet (Form DR-415), Grading Item Summary Sheet (Form DR-064)
- If the project includes bridge structures and/or box culverts, request that **PDU** list Standard Plan Number 490, "Bird Exclusion Netting", on the title sheet
- Prepare and Submit Supplemental City Financial Agreement to **DE** for signatures, use **PS&E** quantity and unit prices (Request for Agreement, Form DR-65) (Include Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- Public Interest Letter (by **ADE**) to **FHWA**, if applicable (submit to **Deputy Director Engineering before** FHWA Approval and Ads Sent Out Date, see Letting Schedule) (RDM - 2006 Chapter Fifteen, Section 6)
- Assemble Special Plans (Erosion Control, Guardrail Hardware, Special Access during construction, Curb Ramps, MS4, etc.)
- Request that **PDU** plot the PS&E plans
- Cross-check all construction notes with the computations
- Prepare the reports for the project (After final PS&E corrections made):
 - Slope Stake
 - Blue top
 - Paving Grades
 - Place the reports in Falcon under "Construction Reports" & Notify **District Project Manager**
 - Notify the **District Project Manager** where to find the Temporary Erosion Control sheets on Falcon (blank sheets for the contractors use)

Reviews:

- Project Description and Scoping Document
- Check Agreements (Including Stormwater Treatment for MS4 – Maintenance of Treatment BMPs, if required. See the *Drainage Manual*, Chapter Three, Section 7.A.5)
- PS&E Plan Package with **RD Unit Head** and **Design Plans Manager**
- "Earthwork Final Plans Checklist" (Exhibit O)

Submittals:

- Project Plan Package to PS&E
 - Send Notice Clarity Task 5790 is done to appropriate **PSS Project Manager** (See Exhibit I, Sheet #2)

PS&E PHASE (5800)

Payroll Activity 5800

Submittals:

- Blue-lined plans to **PDU** for PS&E changes (**PDU** Task Code 5845)
- PS&E changes to **ADE/RD Unit Head** to review/seal/sign & date
- Resubmit plans to **PS&E**

POST LETTING DESIGN MODIFICATIONS PHASE (5900)

POST LETTING SUPPORT AND PLAN REVISION

Payroll Activity 5900

Action:

- Attend pre-construction meeting
- Make revisions, if needed, as the result of **Construction** recommendations
- Acquire written **FHWA** approval for all projects on the National Highway System and for all Federally funded projects before revisions are submitted to the **Construction**
- Obtain originals from the vault, make revisions to plans (RDM - 2006 Chapter Eleven, Section 7)
- Revisions processed between the PS&E turn-in and the letting date must follow the revision process (RDM – Chapter Eleven, Section 7) and be dated after the project is executed (approximately one month after the letting date).
- Update MS4 Form B (“Treatment BMPs”) as necessary

Submittals:

- Project Books to the **District**:
 - Slope Stake
 - Blue top
 - Paving Grades
- Design revisions to **PDU**
- MS4 Form B (“Treatment BMPs”) to **RSU**
- Revised plans (original and revised sheets) & revision letter to **Construction**

Dec. 15, 2014

Roadway Design/Environmental Coordination

(Schedule all meetings through Environ. Liaison Engr. (Julie Wells)
Roadway Design Hydraulic & Environmental Liaison Section)

ACRONYMS, ABBREVIATIONS AND SYMBOLS:

CE	Categorical Exclusion (Class II Environmental Document)
DPO	Design Process Outline
EA	Environmental Assessment (Class III Environmental Document)
ECM	Environmental Coordination Meeting
EDU	Environmental Documents Unit
EDUM	Environmental Documents Unit Manager
EIS	Environmental Impact Statement (Class I Environmental Document)
EPU	Environmental Permits Unit
IER	Initial Environmental Review
NEPA	National Environmental Policy Act
PCE	Programmatic Categorical Exclusion (Class II Environmental Document)
PIH	Plan-In-Hand
PS&E	Plans, Specifications and Estimates
PSS	Project Scheduling System
RDELE	Roadway Design Environmental Liaison Engineer
ROW	Right-of-Way
RSU	Roadside Stabilization Unit
SDLSS	Scoping Documents and Location Studies Supervisor
T&E	Threatened and Endangered

DEFINITIONS:

NEPA Document – The NEPA document is the Environmental Document. To avoid confusion within this document, the environmental document will be referred to as the NEPA document, whether an EIS (Class I), PCE / CE (Class II), or an EA (Class III).

Environmental Documentation – Supporting environmental documentation including, but not limited to, agency correspondence, wetland permits, floodplain certifications and permits, Section 4(f) documents (park and recreational land, wildlife and waterfowl refuges, and historical sites), threatened and endangered species documentation, and hazardous material documentation.

PROCESS:

ECMs are scheduled and documented by the RDELE. Designers request the ECM during the appropriate time according to the project schedule. The six ECMs are required for each project unless a determination is made that states a specific ECM is not required. If ECM 10 is not required, the RDELE will document the decision via e-mail. If the project scope at the time does not warrant an ECM, then no ECMs will be scheduled unless there is a scope change. For ECM 20 through ECM 60, the determination to hold additional meetings is made during a prior ECM and documented in the meeting minutes. In the event that an ECM is not required, the Designer will contact the PSS Manager listed in Clarity to have the specified ECM task(s) removed from the schedule. Projects are likely to have separate meetings outside of the ECMs that will bring important stakeholders together to discuss in further detail environmental issues related to the project.

ENVIRONMENTAL COORDINATION MEETING 10 (5284)
START OF PLAN PREPARATION AND PLAN-IN-HAND PHASE:

WHEN MEETING 10 OCCURS:

- At the start of the Plan Preparation and Plan-In-Hand Phase.
- After scoping documents are complete and designer has become familiar with the design elements for the project.

PURPOSE OF MEETING 10:

- To review the DR-73 Scoping Report, Purpose & Need, and Project Description to determine if any changes are needed.
- To review project length via aerials (most recent aerial or Google Earth).
- To identify Environmental "Red Flags". Discuss design and environmental requirements that could impact the NEPA document and/or environmental documentation, project scope, project schedule, and project design. Identify environmentally sensitive areas that may require additional survey.
- To review potential impacts based on in-house initial wetland determination.
- Liaison will contact the EDUM to determine if Scoping Documents and Location Studies Supervisor needs to be requested at Meeting 10.
- To determine if the Bridge Engineer will be required to attend ECM 20.
- To discuss environmental class (PCE/CE/EA/EIS).

WHAT TO PROVIDE AT MEETING 10:

- DR-73 Scoping Document (5280)
- Base Plan (if available) and most recent aerial photo coverage of project length (Google Earth, Bing Maps, Farm Service Administration or other aerial on MicroStation)
- Initial Environmental Review – Provided by Environmental Permitting Coordinator
- Historic Section 106 Review (5268) – Provided by Environmental Documents Coordinator

Environmental Review Meeting 10 (Clarity Task 5284)
(Conduct at the end of Payroll Activity 5200, Scoping Phase)

Proj No.:	Proj Name:	Control No.:	Date:
Information Supplied:			
Initial Wetlands Determination		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Engineering Review (or Initial Proj. Review) / Location Study		<input type="checkbox"/> Yes	<input type="checkbox"/> No

Action:

- Coordinate Class II (Categorical Exclusion) Projects
- Review: ☐ Maintenance, ☐ 3R, ☐ New & Reconstructed
 - ♦ Scoping Document
 - ♦ Purpose and Need – Completed? ☐ Yes ☐ No ☐ In Progress
 - ♦ Project Description – Completed? ☐ Yes ☐ No ☐ In Progress
 - ♦ **Environmental Issues** Are/ is there _____ on the project?
 - A. NEPA Environmental Classification? ☐ None ☐ Class I ☐ Class II ☐ Class III
 - B. Wetlands? ☐ Yes ☐ No ☐ Further Investigation
 - C. Channels? ☐ Yes ☐ No ☐ Further Investigation
 - D. Potential wetland mitigation sites on the project? ☐ Yes ☐ No ☐ Further Investigation
 - E. Archeological sites or burial grounds? ☐ Yes ☐ No ☐ Further Investigation
 - F. Noise concerns? ☐ Yes ☐ No ☐ Further Investigation
 - G. Contaminated soils or landfills? ☐ Yes ☐ No ☐ Further Investigation
 - H. Parklands (4F-6F)? ☐ Yes ☐ No ☐ Further Investigation
 - I. Historical sites (bridges, buildings, markers, ...)? ☐ Yes ☐ No ☐ Further Investigation
 - J. Landscaping? ☐ Yes ☐ No
 - K. Trees removal? ☐ Yes ☐ No
 - L. Trees planted? ☐ Yes ☐ No
 - M. Endangered Species? ☐ Yes ☐ No ☐ Further Investigation
 - N. What are the Special Conditions/ Further Investigation?
 - O. Significant borrow? ☐ Yes ☐ No ☐ Don't know
 - P. Mapped floodplain within project limits? ☐ Yes ☐ No ☐ Don't know
 - ♦ Project Schedule and Letting Date
- Determine if Alternative Analysis documentation will be needed.

Notes/Comments:

Action Items:

Designer:
Next Meeting:

EPU Biologist:
EDU Analyst:

ENVIRONMENTAL COORDINATION MEETING 20 (5378)
JUST BEFORE PLAN-IN-HAND INSPECTION:

WHEN MEETING 20 OCCURS:

- After PIH plans are complete and before the PIH Inspection.

PURPOSE OF MEETING 20:

- To review Purpose & Need. Does it reflect current project design?
- To review Project Description. Does it reflect current project design?
- To review Environmental impacts due to design and the avoidance, minimization & mitigation strategies for those impacts.
- To identify Environmental “Red Flags” (i.e. design requirements that could cause changes in the NEPA document and/or environmental documentation) and discuss environmental restrictions that could impact project scope, project schedule, and project design (e.g. channel changes).
- To compile a list of concerns to look at during PIH. (At PIH inspection designer will be able to investigate environmental issues brought up in ECM 10 and 20).
- To discuss stream types (perennial/ephemeral/intermittent) and impact locations along the project.

WHAT TO PROVIDE AT MEETING 20:

- Purpose & Need
- Project Description
- Plan-In-Hand Plans
- Initial Wetland Determination (5264) – Provided by Environmental Permitting Coordinator
- Public Meeting Checklist (See Exhibit C of the DPO)

Environmental Review Meeting 20 (Clarity Task 5378)
(Conduct near the end of Clarity Task 5350, Preliminary Roadway Design)

Proj No.:	Proj Name:	Control No.:	Date:
Information Supplied:			
Preliminary Design Plans	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Draft Alternative Analysis, if needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Wetland Permit Data Sheet, completed	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Action:

- Review: ☐ Maintenance, ☐ 3R, ☐ New & Reconstructed
 - ♦ Scoping Document
 - ♦ Purpose and Need – Completed? ☐ Yes ☐ No ☐ In Progress
 - ♦ Project Description – Completed? ☐ Yes ☐ No ☐ In Progress
 - ♦ **Environmental Issues** **Are/ is there** _____ **on the project?**
 - A. NEPA Environmental Classification? ☐ None ☐ Class I ☐ Class II ☐ Class III
 - B. Wetlands? ☐ Yes ☐ No ☐ Further Investigation
 - C. Channels? ☐ Yes ☐ No ☐ Further Investigation
 - D. Potential wetland mitigation sites on the project? ☐ Yes ☐ No ☐ Further Investigation
 - E. Archeological sites or burial grounds? ☐ Yes ☐ No ☐ Further Investigation
 - F. Noise concerns? ☐ Yes ☐ No ☐ Further Investigation
 - G. Contaminated soils or landfills? ☐ Yes ☐ No ☐ Further Investigation
 - H. Parklands (4F-6F)? ☐ Yes ☐ No ☐ Further Investigation
 - I. Historical sites (bridges, buildings, markers, ...)? ☐ Yes ☐ No ☐ Further Investigation
 - J. Landscaping? ☐ Yes ☐ No
 - K. Trees removal? ☐ Yes ☐ No
 - L. Trees planted? ☐ Yes ☐ No
 - M. Endangered Species? ☐ Yes ☐ No ☐ Further Investigation
 - N. What are the Special Conditions/ Further Investigation?
 - O. Significant borrow? ☐ Yes ☐ No ☐ Don't know
 - ♦ Draft Alternative Analysis
 - ♦ Wetland Permit Data Sheet (*preliminary*)
 - ♦ Project Schedule and Letting Date
- Develop Action/Plans for Environmental Issues
 - ♦ Actions by P & PD
 - ♦ Actions by Roadway Design
- Determine what permits may be needed ☐ SWPPP ☐ 404 ☐ Floodplain
- List areas to be reviewed during the field PIH
- Determine what statements need to be added to the PIH Report (*Exp.: migratory bird, etc.*)
- Determine areas requiring additional survey, if needed
- Determine need for Pre-Application meeting
- Determine which future Environmental Review Meetings shall be held.

Notes/Comments:

Action Items:

Designer:
Next Meeting:

EPU Biologist:
EDU Analyst:

ENVIRONMENTAL COORDINATION MEETING 30 (5454)
PRIOR TO PUBLIC OUTREACH/HEARING

WHEN MEETING 30 OCCURS:

- After preliminary draft of the NEPA document (for EA and EIS only) is complete.
- Before public outreach (when necessary).
- PIH is complete and changes have been incorporated into plans.
- Public Hearing plans are ready; Displays and Engineering Statement for Public Hearing/Meeting is complete.
- Final Delineation and Mitigation Concept are complete.
- Threatened and Endangered (T&E) Checklist is complete.

PURPOSE OF MEETING 30:

- To review Purpose & Need. Does it reflect current project design?
- To review Project Description. Does it reflect current project design?
- To review scope of project.
- To provide the environmental staff with the necessary design information needed in the development and completion of the NEPA document and/or environmental documentation.
- To review environmental content of Public Hearing plans, displays and engineering statement. If display materials are extensive, the review should occur prior to ECM 30.
- To determine if the environmental content in the information provided to the public is clear, accurate, and necessary.
- To determine if environmental commitments need to be shown in the plans or public hearing documents.
- To summarize PIH changes and discuss items that changed from ECM 20 to ECM 30.
- To discuss ROW requirements for wetland mitigation areas or channel buffers.

WHAT TO PROVIDE AT MEETING 30:

- Purpose & Need
- Project Description
- Public Hearing Plans
- Displays for Public Hearing/Meeting
- Project Fact Sheet for Public Hearing/Meeting
- Invite Highway Hearings Officer if necessary

Environmental Review Meeting 30 (Clarity Task 5454)
(Conduct at the end of Clarity Task 5428, Functional Design)

Proj No.:	Proj Name:	Control No.:	Date:
Information Supplied:			
Final Wetland Delineation & Mitigation Plans		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Channel Change Mitigation Site Design		<input type="checkbox"/> Yes	<input type="checkbox"/> No

Action:

- Review:
 - ◆ Purpose and Need – Completed? ☐ Yes ☐ No ☐ In Progress
 - ◆ Project Description – Completed? ☐ Yes ☐ No ☐ In Progress
 - ◆ **Environmental Issues**
 - Wetland Mitigation Site Concepts
 - Channel Change Concepts
 - ◆ Action Plans from Meeting #20
 - Conservation Easements
 - Project Schedule
- Determine which future Environmental Review Meetings shall be held.

Notes/Comments:

Action Items:

Designer:

EPU Biologist:

Next Meeting:

EDU Analyst:

ENVIRONMENTAL COORDINATION MEETING 40 (5512)
AFTER PUBLIC OUTREACH / START OF FINAL DESIGN PHASE:

WHEN MEETING 40 OCCURS:

- After public meeting/public outreach activities have been completed and before the start of Final Design activities (The goal is to have the NEPA document approved and accepted at this point).

PURPOSE OF MEETING 40:

- To review Purpose & Need. Does it reflect current project design?
- To review Project Description. Does it reflect current project design?
- To review Project Scope.
- To review and determine final impacts.
- To review and discuss permit requirements.
- To determine whether design changes attained by public outreach activities jeopardize the NEPA document and environmental documentation.
- To ensure that public comments have been addressed.
- To determine if project attributes are the same as what was used to put together the NEPA document and environmental documentation.
- To review wetland mitigation plans.
- To discuss constructability or meeting minutes from constructability meeting.
- To determine restricted areas and contractor's access locations.
- To estimate ROW required.
- To determine if ROW negotiator/designer will be required to attend ECM 50.

WHAT TO PROVIDE AT MEETING 40:

- Purpose & Need
- Project Description
- Public Hearing Plans
- Changes occurring from ECM 30
- Changes occurring from Public Meeting
- Wetland Mitigation Plans
- If there are significant changes due to the public outreach activities, then an individual ECM 40 should be requested to capture the changes.

Environmental Review Meeting 40 (Clarity Task 5512)
(Conduct during Clarity Task 5508, Final Design)

Proj No.:	Proj Name:	Control No.:	Date:
Information Supplied:			
Draft Final Design Plans	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Final Alternative Analysis	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

Action:

- Review: ☐ Maintenance, ☐ 3R, ☐ New & Reconstructed
 - ♦ Final Design Plans
 - ♦ Purpose and Need – Current? ☐ Yes ☐ No ☐ Update In Progress
 - ♦ Project Description – Current? ☐ Yes ☐ No ☐ Update In Progress
 - ♦ Commitments made by the District
 - ♦ Commitments made to property owners as a result of public input
 - ♦ **Environmental Issues** **Are/ is there _____ on the project?**
 - A. NEPA Environmental Classification? ☐ none (state funds) ☐ Class I ☐ Class II ☐ Class III
 - B. Wetlands? ☐ Yes ☐ No
 - C. Channels? ☐ Yes ☐ No
 - D. Potential wetland mitigation sites on the project? ☐ Yes ☐ No ☐ Further Investigation
 - E. Archeological sites or burial grounds? ☐ Yes ☐ No ☐ Further Investigation
 - F. Noise concerns? ☐ Yes ☐ No ☐ Further Investigation
 - G. Contaminated soils or landfills? ☐ Yes ☐ No ☐ Further Investigation
 - H. Parklands (4F-6F)? ☐ Yes ☐ No ☐ Further Investigation
 - I. Historical sites (bridges, buildings, markers, ...)? ☐ Yes ☐ No ☐ Further Investigation
 - J. Landscaping? ☐ Yes ☐ No
 - K. Trees removal? ☐ Yes ☐ No
 - L. Trees planted? ☐ Yes ☐ No
 - M. Endangered Species? ☐ Yes ☐ No ☐ Further Investigation
 - N. What are the Special Conditions/ Further Investigation?
 - O. Significant borrow? ☐ Yes ☐ No ☐ Don't know
 - ♦ Wetland Mitigation Site Design
 - ♦ Channel Change Mitigation Site Design
 - ♦ Final Alternative Analysis
 - ♦ Project Schedule and Letting Date
- Outline any Special Provisions to address any environmental concerns or issues.
- Determine which future Environmental Meetings shall be held.

Notes/Comments:

Action Items:

Designer: _____ **EPU Biologist:** _____
Next Meeting: _____ **EDU Analyst:** _____
 A-10

ENVIRONMENTAL COORDINATION MEETING 50 (5608)
RIGHT-OF-WAY PHASE:

WHEN MEETING 50 OCCURS:

- During ROW Phase.
- After ROW negotiated changes have been finalized.
- When channel mitigation and/or wetland mitigation design is complete and necessary ROW has been acquired.

PURPOSE OF MEETING 50:

- To review Purpose & Need. Does it reflect current project design?
- To review Project Description. Does it reflect current project design?
- To review Project Scope.
- To determine how changes made during ROW acquisition affect the NEPA document and/or environmental documentation.
- To notify EPU and EDU of ROW negotiated changes.

WHAT TO PROVIDE AT MEETING 50:

- Changes to the project's design and to environmental impacts due to ROW negotiations.

Environmental Review Meeting 50 (Clarity Task 5608)

(Conduct after Clarity Task 5576 "Final Design Review" and prior to Clarity Task 5610 "Review Preliminary R.O.W. Plan")

Proj No.:	Proj Name:	Control No.:	Date:
Information Supplied:			
Final Design Plans		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Preliminary ROW Plans		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Roadside Stabilization Erosion Control Design & Comps		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Draft Special Provisions		<input type="checkbox"/> Yes	<input type="checkbox"/> No

Action:

- Review:
 - ♦ Purpose and Need – Current? ☐ Yes ☐ No ☐ Update In Progress
 - ♦ Project Description – Current? ☐ Yes ☐ No ☐ Update In Progress
- Conduct Preliminary ROW Review Meeting
- Discuss covenants/conservation easements needed for mitigation

Notes/Comments:

Action Items:

Designer:
Next Meeting:

EPU Biologist:
EDU Analyst:

ENVIRONMENTAL COORDINATION MEETING 60 (5770)
PS&E PLANS PHASE

WHEN MEETING 60 OCCURS:

- Prior to PS&E turn-in.
- NEPA document and environmental documentation are complete and noted.
- Designer has incorporated ROW changes into plans.
- RSU has completed review of erosion control plans.

PURPOSE OF MEETING 60:

- To review Purpose & Need. Does it reflect current project design?
- To review Project Description. Does it reflect current project design?
- To review Project Scope.
- To verify changes specified during ECM 50 are reflected.
- To review draft Green Sheet
- To confirm that restricted areas are denoted on plans before PS&E turn in (e.g. staging areas, access, concrete cleanout).
- To verify plans and Special Provisions reflect environmental commitments.

WHAT TO PROVIDE AT MEETING 60:

- Draft Green Sheet – Provided by EPU
- PS&E Plans
- Changes to project due to ROW negotiation and acquisition.

Environmental Review Meeting 60 (Clarity Task 5770)

(Conduct at the end of Final Plans Phase (Payroll Activity 5700), prior to Clarity Task 5790 "Final Plans Package & Review for PS&E")

Proj No.:	Proj Name:	Control No.:	Date:
Information Supplied:			
Final Plans		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Waterway Permits		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Environmental Conditions Project Development Summary Sheet		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Control Special Plans		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Temporary Erosion Control Special Plans		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Special Provisions		<input type="checkbox"/> Yes	<input type="checkbox"/> No

Action:

- Review
 - ◆ Purpose and Need – Current? ☐ Yes ☐ No ☐ Update In Progress
 - ◆ Project Description – Current? ☐ Yes ☐ No ☐ Update In Progress
 - ◆ Environmental Conditions Project Development Summary Sheet
 - ◆ Erosion Control Special Plans
 - ◆ Temporary Erosion Control Special Plans

Notes/Comments:

Action Items:

Designer:

EPU Biologist:
EDU Analyst:

Design Checklist

Note: This is not a complete listing. For further information refer to the DPO, Exhibit H of the DPO, and Chapters Two and Twelve of the Roadway Design Manual.

Payroll Activity				Comments
5	5	5	5	Miscellaneous
3	4	5	7	
0	0	0	0	
0	0	0	0	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Read correspondence file
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Begin a list of anticipated special provisions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prepare tree count list
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check grade with bridge division
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check stopping and passing sight distance
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cross check construction notes with computations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Order and review special plans
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Assemble special design, bridge, lighting and traffic plans
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compaction requirements
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special surfacing elevations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Complete special provisions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Funding split
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Detour location
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction Phasing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P.S.&E. required sheets (<i>have Traffic initial for traffic plans</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Length sheet
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Note non-participating items
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Percent of work on railroad right-of-way
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Order tree count after Prelim ROW Design (photo survey only)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Request wetland map and return showing involvement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Review for possible RR crossing consolidation or reduce skew
				Design Details and Construction Notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special plans (<i>flattened slopes for drives and intersections</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Begin and end project, surfacing and construction
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surfacing outline
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grades and surfacing elevations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Balance points and quantities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plot limits of construction for project, intersections, dikes, driveways, channel change, channel cleanouts, waste areas, borrow pits, wetland mitigation, haul roads, spur dikes, culverts and special ditches, etc.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical sections for roadway, channel change, intercepting dikes, county roads, spur, channel under bridge, etc.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grades for intersections, frontage roads, detours, etc.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Contractor will/will not be required to furnish borrow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Utilities notes - Make sure all underground & above ground utilities are on the plans as reviewed at PIH
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Superelevation notes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check, review and verify typical cross-sections
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Horizontal layout of intersections, frontage roads, detours, etc.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Controlled access breaks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bridge construction note

Payroll Activity				Comments
5	5	5	5	
3	4	5	7	
0	0	0	0	
0	0	0	0	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surcharges
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show areas where right-of-way limits have been set
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special placement charts (<i>earthwork</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drainage areas, Q values, and headwater
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special plan (<i>warped slope for guardrail ends</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roadway drainage structures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roadway drop structures (<i>grading contractor</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Driveways and driveway culverts
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do not disturb notes (<i>trees, existing asphalt, wells, etc.</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special Ditches
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dikes (<i>intercepting, ditch, spur</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Erosion Control
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Backfill note for bridge abutments (<i>if no approach slab</i>) (<i>Group 1 or 6</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Miscellaneous removal items (<i>houses, septic tanks, pumps and pump islands, cattle gates, sheds, etc.</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing and resetting delineators
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Abandon wells
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing asphaltic surface
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing brick surface
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing gutter
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing pavement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing driveway
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing walk
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing combination curb and gutter
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing existing slope curb
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing fence
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing steps
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing retaining walls
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing guard posts and guardrail
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing discharge structures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing median surfacing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Removing ditch lining
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Salvage and place topsoil
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build concrete driveway
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build island nose
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build concrete curb (<i>median, barrier, island</i>)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build asphalt curb
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build retaining wall
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build concrete pavement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build median surfacing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build steps
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build sidewalk
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build curb ramps
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build gutter
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build median barrier
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build crosswalks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Build delineators
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adjust delineators to grade
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pavement patching
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Approach slabs
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surfaced drives and intersections

Payroll Activity				Comments
5	5	5	5	
3	4	5	7	
0	0	0	0	
0	0	0	0	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tie bars
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shoulder material available
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction joints
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Impact attenuators
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Guardrail
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sodding
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type of contraction joint on 2T sheet
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pavement Tining

des-18

PUBLIC MEETING CHECKLIST

Instructions

1. The roadway designer shall complete this checklist near the completion of Preliminary Roadway Design (Clarity Task 5350), before the Plan-In-Hand. Review this checklist with your Unit Head in order to determine which, if any, type(s) of advertised public meetings should be held for the project. This is to be reviewed and agreed to by the Assistant Design Engineer and the Roadway Design Engineer.
2. Review this checklist after Roadway Functional Design (Clarity Task 5428), Preliminary ROW Plan Review (Clarity Task 5610), and at all major scope changes to the project.
3. If it has been 12-18 months since your last advertised meeting with the public, the project should be reviewed for an Information Meeting or Information Meeting (Pre-Appraisal).

Meeting Descriptions:

- I. **Design Public Hearing** – An advertised meeting with the general public in the following formats:
 - A. **Presentational:** This provides for a presentational setting with the hearing conducted by the Nebraska Highway Commission. Presentations are made by the Public Involvement Coordinator and the designers of the project. The public is given the opportunity to make recorded comments during the hearing or may submit written comment sheets.
 - B. **Open House:** This format provides for an open house setting consisting of stations within the hearing area where information concerning design, right-of-way, environmental, relocation assistance, etc. is available. This format provides the public the opportunity to have one-on-one conversations with staff and the Highway Commission. The public is given the opportunity to provide recorded comments during the hearing or to submit written comments.

Regardless of the format, a transcript of the hearing proceedings, including the Citizen Comment Sheets, will be produced. This transcript will become part of the project file and subsequent environmental documents.

Factors considered in holding a Design Public Hearing include:

- The project has a Class I or Class III Environmental Classification (See pg. D-2).
- Significant right-of way acquisition having substantial adverse impact to abutting properties.
- The project includes business or residential relocation.
- There are significant impacts to the community which were not addressed at a previous public meeting.
- A request from the Highway Commissioner, the District Engineer, the Nebraska Department of Roads administration, or the FHWA.

II. Information Meeting— An advertised meeting held with the public in an informal one-on-one format to answer general questions and to gather information regarding a proposed improvement. An Information Meeting is not usually a recorded meeting but Citizen Comment Sheets are made available to the public.

Factors considered in holding an Information Meeting are similar to the factors listed for a Design Public Hearing. Additional factors for an Information Meeting include the following:

- The elapsed time since a previous advertised public meeting
- A request from the Highway Commissioner, the District Engineer, the Right-of-Way Division, the Nebraska Department of Roads administration, or the FHWA

An Information Meeting may be held for the following purposes:

- The project has a Class I or Class III Environmental Classification (See below).
- To solicit public input prior to putting proposed design features on a plan. This Information Meeting may be held on the same day as the plan-in-hand.
- To receive public input prior to proceeding with the final design process. This meeting could be held if the public has indicated interest in the project details and may also be used when a public meeting is required to get input and comments associated with the environmental process. Public input is required if the project has adverse effects on a significant historic property and when Section 4 (f) impacts are identified. Public involvement is also required when Section 4(f) impacts are determined to be De Minimis.
- To update the public when there has been a significant change in the scope of the project.
- To meet with adjacent property owners and businesses concerning phasing and access.
- To answer questions regarding the project and the right-of-way acquisition process in a one-on-one informal format, generally referred to as a “Pre-Appraisal Information Meeting”. This meeting is held after the right-of-way appraisal plans are complete and may be attended by representatives of the Right-of-Way Division.

Environmental Classifications:

Class I Projects may significantly impact the environment. Class I projects require the preparation of an Environmental Impact Statement.

Class II Projects, based on previous experience, do not have a significant impact on the environment. Class II projects require the completion of a Programmatic Categorical Exclusion, which can be approved by NDOR, or a Categorical Exclusion, which requires FHWA approval.

Class III Projects are projects on which the impact to the environment must be determined. Class III projects require the preparation of an Environmental Assessment.

Meeting	Class I Project	Class II Project	Class III Project
Information Meeting	Meeting required	Meeting not required	Meeting may be held if input is needed
Design Hearing (A signed Draft Environmental Document, and Noise Study (if needed), is required before a Design Hearing can be advertised, if federal funds are involved)	Meeting required; if appropriate, a combined location/design hearing may be held	Meeting may be held if a review of the project (e.g. scope, amount of new right-of-way required, and/or other factors) indicate	Meeting required

Meetings Required for Environmental Class of Project

PUBLIC MEETING CHECKLIST
CHECKLIST FOR ROADWAY DESIGN
"ADVERTISED" MEETINGS WITH THE PUBLIC

Project No.: Control No.:
Project Location: Unit Head:
Designer: Letting Date:
Date:

Administrative Input

Request for an advertised public meeting from a Government Agency. (whom/agency)
Local? State? Federal?
NDOR (District Engineer, Roadway Design Engineer, etc.)?

Project Impacts

1. Access to property.

- A. Is there a permanent modification of access to a property? Yes ☐ No ☐
B. Will the modification of access cause a change in the use of the property? Yes ☐ No ☐
Business or Residence and how impacted?

2. Traffic control during construction.

- A. Is there a Detour? Yes ☐ No ☐ Length (miles)
Traffic? ADT (const. yr.) Location? (Load restrictions?)
What is the condition of the alternate routes?
B. Will there be phasing of the project? Yes ☐ No ☐ Traffic? ADT (const. yr.)
Phasing affects access to business, home, or agriculture? Yes ☐ No ☐
What will be the length of time of inconvenience to the public?
At what time of the year will the construction be phased?
Are there local events which will be impacted by the phasing?
C. Will the project include a temporary road?
How long will the temporary road be needed? (days/months)
Is additional R.O.W required for the temporary road? Yes ☐ No ☐
D. Does the project affect emergency vehicle access? Yes ☐ No ☐
Have you contacted local emergency services? Yes ☐ No ☐
E. Does the project affect school crossings/routes? Yes ☐ No ☐
Have you contacted school officials? Yes ☐ No ☐

3. Environmental Issues

- A. Does the project have a NEPA Environmental Classification? Yes ☐ No ☐
(See DR Form 53, "Probable Class of NEPA Action Form" or contact the Environmental Section Manager)
Class I ☐ Class II ☐ or Class III ☐ Class I or III Environmental Classification requires a Design Public Hearing.
- B. Are wetlands impacted? Yes ☐ No ☐ Area _____ acres, Type(s) _____
Channel change? Yes ☐ No ☐ Length _____ feet.
- C. Is there wetland mitigation on the project? Yes ☐ No ☐ How much? _____ acres.
- D. Does the project impact burial grounds? Yes ☐ No ☐
- E. Are there noise concerns? Yes ☐ No ☐
- F. Are there contaminated soils? Yes ☐ No ☐
- G. Does the project impact: Parklands ☐ Historic sites ☐ Wildlife refuges ☐
- H. Are there historical sites on the project? Yes ☐ No ☐
- I. Are there adverse effects on significant historical sites? Yes ☐ No ☐
(If yes, public involvement is required).
- J. Does the project impact trees and/or landscaping? Yes ☐ No ☐

Right-of-Way

1. Access Management

- A. Are you buying Controlled Access? Yes ☐ No ☐
(If yes, this requires Highway Commission and Governor approval).

2. Acquiring Right Of Way (Yes ☐ No ☐)

If yes – How much? _____ (acres), # of tracts impacted?

3. Items that will require additional R.O.W.

- A. Are you building additional lanes? Yes ☐ No ☐
- B. Are you building sidewalk or a bike path? Yes ☐ No ☐
- C. Adding traffic signal(s)? Yes ☐ No ☐ Where? _____
- D. Lighting? Yes ☐ No ☐ Intersection? ☐ Continuous? ☐
- E. Does the project include Retaining walls? Yes ☐ No ☐
- F. Does the project include the construction of a drainage system? Yes ☐ No ☐

4. Bridge overpass or underpass.

Vehicular? ☐ Pedestrian? ☐ Railroad? ☐
(Review all information from Planning & Project Development)

5. Relocations.

- A. No. of Business _____ List _____
- B. No. of Residences _____
- C. Sanitary System? Yes ☐ No ☐
- D. Well? Yes ☐ No ☐
- E. Center pivot/irrigation impacted? Yes ☐ No ☐

Project Location

Project No.

Instructions: Your recommendation for each meeting requires an explanation, even if your answer is no.

The following type(s) of advertised public meetings should be held for this project:

Yes ☐ No ☐ * **Information Meeting**

Explanation

Yes ☐ No ☐ * **Design Public Hearing** (yes when Environmental Classification I or III)

Explanation

Yes ☐ No ☐ **Presentation to the Highway Commission**

Explanation

Yes ☐ No ☐ * **Information Meeting (Pre-Appraisal)**

Explanation

Yes ☐ No ☐ **No Advertised Meeting with the Public**

Explanation

* Mosaic's are normally placed on the internet. The timing as to when the information is made available on the internet is determined by the District Engineer and Assistant Design Engineer. Changes to the public involvement decision document shall be approved by Unit Head & Assistant Design Engineer.

Recommended by: _____ / _____
Unit Head Date

Approved by: _____ / _____
Rdwy. Design Asst. Design Engineer Date

Approved by: _____ / _____
P&PD Environmental Manager Date

Approved by: _____ / _____
Roadway Design Engineer Date

Approved by: _____ / _____
District Engineer
Coordinating w/ Hwy Commissioner Date

cc: State Highway Commissioner
Public Involvement Coordinator

Access Control Determination

Refer to the "Access Control Policy to the State Highway System."

Necessary documents for Access Control Meetings:

Preliminary Access Control Determination

(Is AC needed or not?) Prelim Design, (Clarity Task 5350)

1. Bring As-built plans, 9" by 9" aerial photos,
 - a. Note existing access control or not.

Preliminary Controlled Access Determination Preliminary Design, (Clarity Task 5350)

1. Bring the Preliminary plans or Engineering Review.
2. Bring current R.O.W. plans, (usually Ownership Plans.)
3. Bring photo plan (this will be used for the actual review).
 - a. Note property lines.
 - b. Note location of existing access.
 - c. Note type of existing access.
 - d. Note proposed access locations.
4. Prepare and bring Access Summary (See Page E-2).

Individual Access Determination Functional Design, (Clarity Task 5428)

1. Bring the Plan-in-Hand plans.
2. Bring current R.O.W. plans.
3. Bring cross-sections (if applicable).
4. Bring photo plan sheet (this will be used for the actual review).
 - a. Note property lines.
 - b. Note location of existing access.
 - c. Note type of existing access.
 - d. Note proposed access locations.
5. Prepare and bring Access Summary (See Page E-2).

Changes or Revisions

1. Bring current R.O.W. plans.
2. Bring photo plan (this will be used for the actual review).
 - a. Note property lines.
 - b. Note location of existing access.
 - c. Note type of existing access.
 - d. Note proposed access locations.
3. Invite the requester (appraiser/negotiator).
4. Bring cross-sections (if applicable).

Note: When Access Control is purchased with the project, the Highway Commission and Governor's approval are required.

ROW PERMITS: shows a list of permits in the area selected

Here's the program for viewing ROW permits on the Mainframe:

Use CICS1 by entering C1 and your dr##### and password (same as using your time sheet).

Enter 8 to select Integrated Highway Inventory System.

Enter 22 to select Use & Occupancy Permits.

Enter 2 to select Query.

Enter 3 to select Use & Occupancy Permit by Hwy/County/Type/Status Query.

Enter the highway # and a reference post range – county, type and status may be left blank.

cc's ON ACCESS CONTROL LETTERS:

MIKE OWEN	Planning and Project Development - Division Head
DISTRICT ENGINEER	District #
DAN FOREMAN	Right of Way Division - R.O.W. Design Engineer
JILL SMITH	Right of Way Division - Property Management
DAVE HOLLAND	Right of Way Division - Chief Appraiser
JOSEPH WERNING	FHWA
CONSULTANTS	(If involved)

Access Summary

(1) Mile	(1) Side	Existing Access Location (Station & Side)	(2) Existing Type of Access (Stage II)	New Access Location (Station & Side)	(3) Type of New Access	(4) Desirable Access Per Mile By Policy	(4) Is Min. Spacing Criteria Met?	
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								
							Yes <input type="checkbox"/>	No <input type="checkbox"/>
Remarks:								

- (1) "Mile" represents the distance from the beginning of the project in whole numbers.
"Side" represents the side of the roadway when traveling in the direction of increasing station.
- (2) If there is existing access control, use the types shown on R.O.W. ownership plans.
If there is no existing access control, this column does not apply.
- (3) Use the existing access control type if there is one -- otherwise, leave blank.
- (4) See pages 7-8 of the Access Control Policy.

Constructability Issues

(Checklist)

Send invitations with a set of plans if a constructability meeting is held separate from the PIH

Invite: Unit Head, District Engineer, District Construction Engineer

Invite the following as required: FHWA, Bridge, Assistant Design Engineer, District Maintenance Supervisor, Project Manager, Assistant Construction Engineer (J. Volz), Final Plans Coordinator (F. Brill), Utilities Coordinator, Utility Company Rep, R.O.W., Traffic Engineer, Environmental Section Manager, City/County Rep, AGC, Railroad Liaison, Railroad Company Rep, Lighting, and others as needed.

Accommodation of traffic

- Design Speed of Detour
- Intersections
- Location of Obstacle or Hazard
- Shoulder as a Detour (Existing Pavement Conditions)
- Detours – Coordinate with other Projects in the area
- Distance between traffic and construction

Appropriate letting

- Winter Work
- Availability of Materials
- Time for Construction
- Incentives/ Disincentives/ A + B Bidding
- Begin/ Completion Dates
- Calendar/ Working Days

Access during Construction

- Businesses/ Local Traffic
- School Buses
- Emergency Vehicles
- Postal Delivery

Bridge Design

- Grades
- Drainage
- Phasing
- Vertical Clearance
- Bridge Width
- MSE Wall Details (height, drainage, etc.)

Phased earthwork

- Quantities for each side
- Quantities for each alignment
- Break quantities at county roads
- Phased earthwork cross-sections necessary
- Quantities for each phase

Airspace Obstructions – Within four miles of an airport?

Utility Conflicts - Early Utility coordination required.

Right of Way - Early tracts (as needed)/ Access Easements

Drainage

- Phased drainage cross-sections
- Drainage during phased work

Geotechnical

- Settlement time
- Unsuitable material
- Available Borrow material

Environmental

- 100 year Floodway impact
- Endangered species or plants
- Borrow Pit - exposed ground water
- Hazardous Waste materials

Special Events - coordination with the local community as necessary

Special Provisions

- Peak Hours
- Lane Closures required
- Complete closures required
- Weekend closures

Coordination with Others

- Railroad
- Irrigation Districts
- City/ County/ SID
- Local NRD
- Other Projects
- Bureau of Reclamation
- Nebr. Dept. of Aeronautics

Items to supply: Plans (1/2 size), Cross-sections (Drainage with phasing shown), Estimate, State & County Map, NDOR "Surface Transportation Program Book", Schedule of major events – (i.e. Football game schedule), Calendar, and Calculator.

NOTE: A letter or e-mail shall be sent to all participants summarizing the meeting conclusions and changes or additional items to review.

Erosion Control - Plan-In-Hand - Checklist

PROJECT NO.:	CONTROL NO.:
LOCATION:	
DESIGNER:	PHONE:

Is seeding required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is sod required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is silt fence required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is slope protection required? (Sand Hills and other sandy areas).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is topsoil to be salvaged?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is erosion control netting required? (Sand Hills)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is manure available for shoulder stabilization? (Sand Hills only)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is the product replacing a waterway? (Contract or ROW item)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there channel changes?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is borrow taken from within state right-of-way?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there tree conflicts?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there Federal or Tribal properties?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are curbs and flumes required in the rural areas?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there grades between 2.5% and 3.5%? ⁽¹⁾	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there grades 3.5% or over? ⁽²⁾	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there slopes steeper than 3:1?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are erosion checks required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are intersection dikes required? (Note locations)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are wetlands on or encroached upon by the project?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there any environmentally sensitive areas?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are there any special seeding requirements? (Ex. Park/Golf Course)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
OTHER COMMENTS:		
Environmentally Sensitive Areas:		
Soil Type:		
Comments:		

(1) Highlight on plans and discuss erosion control options with Roadside Stabilization Unit.

(2) Curb and Flumes will be utilized if there are erosion issues.

To be completed on the Plan-In-Hand, in consultation with DE and DCE, then sent to P&P Div., Roadside Development Unit, before preparing the plan-in-hand report.

Covenant and Final; Relinquishment Agreements

Roadway Designers Process

Covenant Relinquishment Agreement: (CRA)

1. Review Planning & Project Development's (P&PD) CRA(s), if any.
2. Determine if a new or revised CRA is needed.
3. If needed, prepare the following information for the CRA:
 - A. Location Map Exhibit (Plan Development Unit). Review with your supervisor.
4. Submit the information to P&PD.
5. Review P&PD's draft CRA and comment.
6. Receive signed copy before scheduling the dry run of the Public Hearing.

Final Relinquishment Agreement: (FRA)

1. Review Covenant Relinquishment Agreement.
2. Prepare information for FRA.
 - A. Modify Location Map Exhibit (Plan Development Unit). Review with your supervisor.
3. Submit the information to P&PD.
4. Review the draft FRA and return it to P&PD.

Routing List for Agreements:

1. Roadway Design - Engineer (Jim Knott)
2. Director's Office – Deputy Director Engineering (Khalil Jabber)
3. Planning & Project Development - Agreement Services (Jerry Adams)
4. Controller Division Finance Administrator (Steve Maraman)
5. Planning & Project Development - Agreement Engineer (Randy ElDorado)
6. Planning & Project Development - Engineer (Mike Owen)
7. Return to: Planning & Project Development - Agreement Services (Jerry Adams)

Cost Estimate Item Checklist

Note: Not a complete listing. For further information see Chapter 12 of the Roadway Design Manual.

Group #1 - Grading

Removing Trees and Stumps
General Clearing & Grubbing
Covercrop Seeding
Traffic Control Devices
Field Lab, Type "C"
Mobilization
Excavation
Excavation Borrow
Earthwork Measured in Embankment
Removal of Unsuitable Material
Excavation (Established Quantity)
Embankment for surcharge (Established Quantity)
Roadway Grading
Water Applied
ROW Markers
Resetting ROW Markers
Salvage and Place Topsoil
Salvage and Stockpile Topsoil
Slope Protection
Erosion Control
Erosion Checks
Broken Concrete/Rock Riprap
Driveway Culvert Pipe
Rd. Equiv. Dr. Culvert Pipe
Abandoned Manholes
Relaying Driveway Culvert Pipe
Backslope Pipes
Median Pipes
Temporary Surfacing
Clear Tract No. *
Gravel/Rock Surf. Course for Temp. Access
Temporary Shoring
Removing Existing Slab
Restoration of Borrow Pits
Gabions, Type *

Abandoned Wells
Building Inertial Barrier Modules
Fill Material for Inert. Barrier Modules
Retaining Walls
Chain Link Fence
Salvaging & Stockpiling Bit. Material
Silt Fence
Fabric Silt Checks
Wetland Mitigation
Wetland Seeding or Salvaging & Stockpiling Hydric Soil
MSE Walls - 4 items
Removals:
Pavement, Asphalt Surface, Gutter, Driveway, Sidewalk
Removing Comb. Curb & Gutter
Removing Curb
Removing Manholes
Removing Tank
Removing Inlets
Removing Existing Dr. Pipe-Salvage
Removing Existing Guardrail
Removing Brick Surfacing
Removing Existing Slope Curb
Removing Fence
Removing Steps
Removing Retaining Walls
Removing Ditch Checks
Removing Catch Basins
Removing Junction Boxes
Removing Discharge Structures
Removing Flumes
Removing Median Surfacing
Removing Ditch Lining
Removing Existing Buildings

Group #2, 2A, or 9A - Detour

Traffic Control Devices
Gravel Surface Course
Shoofly Surfacing
Temporary Signals
Temporary Bridge
Temporary Lighting
Temporary Railroad Crossing/Signals

Crushed Rock Surface Course
Calcium Chloride, Applied
Gravel Embedment
Winter Gravel
Crossovers
Temporary Gravel

Groups #3 and #9 - Surfacing

Traffic Control Devices
Field Laboratory, Type "B"
Mobilization

Surfacing Under Guardrail
Delineators, Type *
Gravel or Crushed Rock Surface Course (for
Intersections & Drives)
Gravel Surface Course
Gravel Embedment
Special Surface Course for Mailbox Turnouts
Mailbox Posts
Sodding
Placing Topsoil
Breaking Pavement Concrete Curb
Concrete Island Curb
Concrete Median Curb
Concrete Barrier Curb
Concrete Combination Curb & Gutter
Concrete Sidewalk
Concrete Median Surfacing
Concrete for Island Noise
Concrete Median Barrier
Concrete Driveways
Foundation Course (Bituminous)
Foundation Course (Regular)
Foundation Course (Crushed Concrete)
Adjust _____ Box to Grade (Curb Stop,
Valve, Roadway, etc.)
Reconstruct Manhole to Grade
Adjust Manhole to Grade
Soil Aggregate Base Course
Slope Drains
Flumes, Type *
15" Corrugated Culvert (for flumes)
Soil Aggregate Base Course
Milling, Class *
Concrete Base Course Widening

Concrete Pavement, Type *
(Patching Concrete with Concrete)
Pavement Patching, Type *
(Patching Concrete with Asphalt)
Pipe Underdrains
Granular Subdrains
*Concrete Pavement
*Reinforced Concrete Pavement
Asphalt Concrete Type *
Asphalt Concrete for Patching
(include with roadway asphalt)
Asphalt Concrete for Intersections and Drives
Asphalt Concrete for Median Surfacing
Asphalt Oil for Prime Coat
Emulsified Asphalt for Tack Coat
Asphalt Cement for Asphalt Concrete
Constructing Asphalt Concrete Curb
Constructing Asphalt Concrete Flumes
Constructing Asphalt Concrete Island Nose
Preparation for Expansion Joints
Preparation of Intersections & Drives,
Type "A, B & C"
Rental of Loader, Motorgrader, and/or
Dump Truck
Water Applied (*1M. gal/sta) (**0.5 gal/sta)
Shoulder Construction
Shoulder Subgrade Preparation
Subgrade Reconstruction
Median Construction
Subgrade Preparation
Subgrade Stabilization
Soil Binder for Subgrade Stabilization
(see computation form)
Armor Coat
Bituminous Sand
Crushed Rock Surface Course

Group #4 - Culverts

Traffic Control Devices Mobilization

CI Covers, Frames, Grate Rings, Flanges
Removing Existing FES
Removing Existing Headwalls
Preparation of Existing Structure
Remove Existing Structure
Excavation for Box Culverts
Excavation for Culvert Pipes & Headwalls
Culvert Pipe
Corrugated Metal Pipe
Jacking Reinforced Concrete Sewer Pipe
Jacking Reinforced Concrete Pipe, Class *
Reinforced Concrete Pipe, Class IV
Reinforced Concrete Pipe, Class V
Reinforced Concrete Pipe
Reinforced Concrete Sewer Pipe
Clay Sewer Pipe
Culvert Sand-fill
Flared End Sections
Metal FES
Concrete FES
Bar Grates for FES
Concrete for Box Culverts
Concrete for Headwalls, Steps, Catch Basins,
Collars, Retaining Walls and Plugs

Reinforced Steel for Box culverts
Reinforced Steel for Steps, Catch Basins,
Collars and Retaining Walls
Dampproofing
Jacking Steel Casing
Slope Drains
Flumes, Type *
Flume Spillway
Cast Iron Covers, Frames, Grates, Rings,
Flanges
Area Inlets
Junction Box
Build Manholes
Irrigation Structures
Remove Sewer Pipe
Tapping Existing Manhole
Tapping Existing Structure
Tapping Existing Culvert
Inlet Riser
Relocating CMP, RCP
Rock Riprap & Filter Fabric
Concrete for Inlets & Junction Boxes
(5.0 cu yd each)
Steel for Inlets & Junction Boxes
(250 lbs each)
Temporary Shoring

Group #5 - Landscaping

Traffic Control Devices Seeding, Type *
--

Fabric Silt Checks
Landscaping

Group #6 - Bridge

Traffic Control Devices Mobilization

MSE Walls - add 4 items
Major Riprap Channel Lining
Concrete for Pavement Approach Slabs

Reinforced Steel for Pavement Approach
Slabs
Bridges (sq ft)
Bridge Removal
Channel Change

Group #7

Traffic Control Devices

W or Thrie-beam Guardrail
End Treatment type * (I or II)
Bullnose 12.5'
Special Guardrail Posts, Type *
Guardrail & Accessories
(BAS, End shoe etc.)
Removing & Resetting Safety Beam GR

Cable Guardrail / anchorage assembly
Remove & Reset ROW Fence
Terminal Anchorage Section
Guard Posts
ROW Fence & Accessories
(PET, C.C., Type I, EP, PP)
Chain Link Fence & Accessories
Gates

Group #8

Traffic Control Devices

Lighting
Signalization

Sign Supports
Permanent Signing

Miscellaneous Group

Noise Walls
Railroad Crossings/Signals/Communication
Lines
Irrigation Structures

Non-Betterment City Utilities Relocation
Water Retention Structures
Any Engineering or Construction Accomplished
by Others

Other Project Costs (for information only, calculated by others)

Construction Engineering 7% of base engr.
costs.
Contingencies 3% of base engineering costs
P.E. 4.4% for New Construction
P.E. 0.5% for Resurfacing
P.E. 8% for New Construction (Consultant
Design)

Utilities 2.9%
ROW Acres x Unit Price/Acre (See Chapter 12
of the Roadway Design Manual)
ROW Items (Relocation, Center Pivots, etc.)
Special Utility Items (Pipelines, Substation,
large
overhead power, fiber optics, etc.

* Stands for type to be determined.
Estimator will add items in blocks.

Distribution of Plans

Please note substantial changes from the Engineering Review on the plans transmittal letter.

Clarity Task 5380: Preliminary Plans for Plan-In-Hand (PIH). Include location map & typical section

Of Sets Half size plans (use cell "Preliminary Plans") distribute 2 weeks prior to PIH

- 4 - For our use on the Plan-In-Hand field inspection
- 1 - ★ Bridge [M. Traynowicz] (*if applicable*)
- 1 - Traffic Engineering [D. Waddle] (send "Constructability Issues" Checklist, Exhibit E)
- 1 - ★ R.O.W. - invite designer on PIH [cc D. Foreman & ROW Project Manager] (*if buying ROW*)
- 2 - ★ Materials & Research [★M. Lindemann, & B. Varilek; thru M. Syslo]
- 3 - ★ District Construction Office (DCE/Office, PM, & Main. Super. Send "Constructability Issues" Checklist, Ex. E)
- 1 - ★ Railroad Liaison [T. Palmer] (incl: X-sects, show exist. RR ROW & location of rails)
- 5 - ★ Planning & Project Development (P&PD) [★R. Poe, 2 for J. Jurgens, & 2 for ★ B. Neemann] (*invite to PIH if applicable, See Exhibit J, pg. 6*)
- 2 - Highway Archaeologist [K. Paitz]
- 2 - FHWA (★when federal oversight) [Joseph Werning] (*only Interstate New and Reconstruction projects*)
- 1 - Plans Manager [P. Brunken]
- 1 - ★ City or County (*if impacted*)
- 1 - Airport Authority (*if airport near project*)
- 2 - Construction Div. [C. Oie, F. Brill – "Constructability Issues" Checklist, Exhibit E. ask for Working days/ Letting]

Notify plans are on Falcon – DCE, Lighting Engineer [C. Humphrey], P&PD Scoping & Utilities Engr. [Brandie Neemann], P&PD Environmental Permits Unit Manager [Tony Ringenberg], P&PD Traffic Counter Shop [S. Stroud PSS], Project Manager [See Sheet I-2]

★ - Invite to PIH with District Construction Engr., Maint. Supervisor, & PM – (also on Exhibit J, pg. 6)

Note: Railroad personnel need 5 weeks notice to attend PIH

Clarity Task 5434: Functional Plans (Hearing Plans) (use cell "Preliminary Plans")

#2 sets ($\frac{1}{2}$) - District Construction Office (DCE/Office & PM)

1 set ($\frac{1}{2}$) - Affected Divisions and FHWA, if major change was made to the PIH plans (Ex. Major change in the grade line - 1 ($\frac{1}{2}$ size) set to O. Qudus, M&R)

1 set ($\frac{1}{2}$) - City and/or County (if impacted)

4 sets 2(full) & 2($\frac{1}{2}$) - Public Hearing Plans - take along to Public Hearing

#1 set ($\frac{1}{2}$) - Planning & Project Development [B. Neemann]

1 set ($\frac{1}{2}$) - Plans Manager [P. Brunken]

#1 set ($\frac{1}{2}$) - Railroad Liaison [T. Palmer] (Incl. X-sec. showing exist. RR ROW & location of the rails)

Notify plans are on Falcon- DCE, Traffic Engineering [D. Waddle], P&PD Environmental Section Mgr. [J. Jurgens], P&PD Scoping & Utilities Engr. [Brandie Neemann], PSS Project Manager [See Sheet I-2]

- Distribute 5 weeks prior to Public Hearing if applicable

Clarity Task 5576: Final Design Plans - Include Location map & typical section

Of Sets (half size plans) (use cell "Preliminary Plans")

- 1 - Construction Div. [F. Brill - Send "Constructability Issues" Checklist, Exhibit E]
- 1 - Plans Manager [P. Brunken]
- 2 - Planning & Project Development [J. Barber, & R. Poe]
- 2 - Materials & Research [M. Lindemann, & B. Varilek; thru M. Syslo] *(3 sets if Asphalt Surfacing)*
- 1 - R.O.W. Design Engineer [D. Foreman] *(include cross sections)*
- 2 - District Construction Office (DCE/Office & PM)
- 1 - FHWA [Joseph Werning] *(If federal overview is required for project)*
- 1 - Bridge [M. Traynowicz] *(plan and profile sheets of bridge areas only)*
- 1 - City and/or County *(if impacted)*
- 2 - Highway Archaeologist [K. Paitz]
- 1 - Keep available in Roadway Design *(stamp Final Design Plans)*
- 1 - Airport Authority *(if near airport, See Exhibit R)*
- 1 - Railroad Liaison [T. Palmer] *(include culvert X-sec. & X-sec. w/ RR ROW and location of rails shown)*

Notify plans are on Falcon – DCE, Traffic Engr. & Asst. Traffic Engr. [D. Waddle & A. Swanson],

P&PD Environmental Section Manager [J. Jurgens, Lighting Engineer [C. Humphrey], P&PD Scoping & Utilities Engr. [Brandie Neemann], PSS Project Manager [See Below]

Clarity Task 5614: Design Plans to Utility Section

- 1 - P&PD [Scoping & Utilities Engineer B. Neemann] send after ROW negotiations. *(Exhibit Q)*

Notify plans are on Falcon - P&PD Scoping & Utilities Engr. [Brandie Neemann], PSS Project Manager [See Below]

NOTE: Changes to the design after Final Design plans are sent out: A Notification of change should be given to the affected Divisions (ex: ROW, Wetlands/ Environmental Section, Utilities, District - DCE & PM). This note or E-mail should include: Project Name & Control Number, a brief description of the change, location, effect on the project, and the anticipated time updated plans will be available.

PSS Project Manager Assignments

Interstate Projects:	Lloyd Peterson
Districts 1 & 6:	Cindy Hosler
District 2:	Drew Parks
Districts 3 & 7:	Paul Fintel
Districts 4 & 5:	Jim Grupe
District 8:	Steve Moore

PLAN-IN-HAND CHECKLIST

Date of Inspection: ____/____/____

Project No:	Project Name:	C.N.
Project Location:		
Designer:	Unit Head:	

Project Type: New Construction ☐ Reconstruction ☐ 3R ☐

Design Standard: _____ Terrain: Level ☐ Rolling ☐

Design Speed: _____ mph

National Functional Classification: _____ State Functional Classification: _____

On NHS? Yes ☐ No ☐ On Priority Commercial System? Yes ☐ No ☐

Letting Date: _____ Working Days: _____

Existing Roadway: Width _____ Depth _____ Type _____ Earth Shoulder Width: _____

Existing Shoulder: Width _____ Depth _____ Type _____

Design Roadway: Width _____ Depth _____ Type _____ Mill: Class/Depth _____/_____

Design Shoulder: Width _____ Depth _____ Type _____ Earth Shoulder Width: _____

Existing Clear Zone/Lateral Obstacle Clearance: _____ Existing 1:6 Side Slopes? _____

TRAFFIC COUNT	20	20
ADT		
DHV		
% Heavy Trucks		
Twenty-Year Forecast Map:		

Attendance: _____

List of specific design questions:

Lighting recommendations:

Utility conflicts or utilities not show on plans:

Stream Gauge installations:

Substation locations:

Railroad involvement (measure distance to signals and length of crossing):

Safety Hazards within 1000 ft. of the project:

Airports within four miles of the project (see Exhibit R):

Bridge recommendations:

Bridge structures less than 20 ft. in length (notify Bridge Division for inspection):

Guardrail to remain in place; do end treatments meet NCHPR 350 or MASH?

Guardrail to remain in place; height at completion of project (27 in. min. on the NHS, 26½ in. other projects):

Guardrail connections to a bridge; do they meet current standards? (request determination from Bridge):

Surfacing or removal recommendation for raised medians (request from Traffic):

Widening recommendations for horizontal curves:

Within corporate limits of:

Hazardous waste/underground storage tank sites:

Wetland/floodplain considerations:

4-F/6-F lands impacted:

Tree/stump count (trees/stumps larger than 80 in. circumference at 40 in. height):

Clearing & grubbing:

Relinquishments:

Additional survey:

FHWA Design Exceptions/Relaxations of the MDS:

DISTRICT RECOMMENDATIONS:

Public Meeting (Exhibit C):

Balance factor and material availability:

Accommodation of Traffic:

Detour (include Hwy #s and Ref. Posts):

Phasing/Constructability Issues (Exhibit E):

Temporary road location and design:

Traffic affected adversely enough to be a "Significant Project"? Yes ☐ No ☐

(If Yes, a Traffic Management Plan is required, see Exhibit K, pg. K-5).

Guardrail removal:

Salvage items: (e.g. guardrail, delineators)

Surfacing comments:

Other road templates:

Snow control:

Erosion Control considerations (Exhibit F):

Preferred Concrete Flume Type:

Special accessibility needs during construction (ADA):

Sidewalks/Bicycle Paths:

Items to be accomplished by State Forces:

Re-establish Lot Corners (corridor protection, etc.)? Yes ☐ No ☐

Are logo signs to be removed? Yes ☐ No ☐

Miscellaneous:

INVITE TO THE PLAN-IN-HAND

(See Exhibit I for distribution of plans)

1. Bridge Personnel (*if bridges on project*)
2. R.O.W. Designer [cc D. Foreman & ROW Project Manager] (*if buying ROW*)
3. Materials & Research – Geotechnical Engineer [M. Lindemann]
4. District – Engineer, Construction Engineer, Maintenance Supervisor, Project Manager
5. Railroad Liaison [T. Palmer] (RR personnel need 5 weeks advance notice to attend PIH)
6. Planning & Project Development - Environmental [T. Ringenberg & R. Poe through J. Jurgens] (*if applicable*)
7. Planning & Project Development – Assigned Environmental Permits Unit Coordinator [M Schroer, R. Walkowiak, N. Burnham, J. Williams, K. Baker, P. Sward, or S. Sisel] (*if applicable*)
8. T&E Biologist [M. Marinovich] (*if applicable*)
9. Planning & Project Development - Scoping & Utilities Engineer [B. Neemann]
10. Planning & Project Development - Utilities Coordinator [through B. Neemann]
11. FHWA (when oversight) [Joseph Werning] (*only Interstate New and Reconstruction projects*)
12. City and/or County Personnel (*if impacted*)

ITEMS TO TAKE ON PIH:

Camera,
100 ft. tape or equivalent
Digital hand level
Safety vest, cap/hard hat
Strobe light

This checklist or a customized list
Correspondence file(s)
Four sets of half-size plans
One set of half-size cross sections
One set of ROW ownership plans

NOTE: Be aware of your surroundings, traffic may not slow down for you and rattlesnakes enjoy to warmth of the culverts that you are inspecting.

PRE & POST PLAN-IN-HAND NOTES

Wetlands/ Environmental Issues: Following the plan in hand inspection, if there are changes to the project the designer will meet with the Environmental Program Manager or his representative to review the changes and determine if changes to the pre-permit application consultation process will be necessary.

3R Projects: The need for a plan-in-hand will be determined on a project-by-project basis. A plan-in-hand is required if the project is on the NHS. A plan-in-hand is not required if a project has existing 1:6 foreslopes, but may be held if it would be beneficial.

Raised median: Raised medians on high speed roadways will be usually be removed with the project and replaced with a painted median. For existing raised medians on the mainline roadway: check with the Traffic Division before the plan-in-hand and with the District at the plan-in-hand to find out if they have a very good reason why the raised median should remain.

Airplane: If taking an aircraft and extra seats are available coordinate with the Bridge Division in case they need to inspect a nearby bridge.

Municipalities: If a project is located within the corporate limits and we anticipate the municipality will need to share in the project's cost we need to invite representatives of the municipality to attend the plan-in-hand.

Lighting: (Determined by the Lighting Engineer) If lighting is needed tell the municipality at the plan-in-hand what their share of the estimated costs will be for the installation of the lights and that the energy and maintenance costs will be 100% the municipality's cost. This also needs to be in the city agreement (the energy costs will not be in the city agreement but should be known in case the municipality asks). Thus, well in advance of the plan-in-hand, we need to get a recommendation from the Lighting Engineer if lighting will or will not be a part of the project and what its estimated construction costs will be as well as what the anticipated energy costs will be.

Utilities: Review project with Utility Coordinator before the plan-in-hand. Invite them to the plan-in-hand. After the plan-in-hand meet with the Utility Coordinator to review utilities that will need to be surveyed.

Miscellaneous: If the project is likely to have questions from the public, generally an urban project or one with major new alignment, a meeting may be scheduled shortly after the plan-in-hand with the Director and Deputy Director-Engineering to inform them about the project.

Plan-In-Hand Report Outline

Date: Date of Report (Note: After the PIH Report has been routed, change this to the date of the approved report)

From: Designer _____

To: Project File

Thru: Unit Head or Assistant Design Engineer _____

Subject: Plan-In-Hand Report (The Clarity "Plan-In-Hand" late date is __/__/__)
Project number, name of project, and control number (The Clarity letting date is __/__/__)
(When functioning as a scoping document, the subject line should read "Plan-In-Hand and Scoping Report")

- ★ **Location:** Beginning and end location - reference posts. (*Note change to project length*)
- ★ **Scope of Work:** General statement of work involved [*Grading, structures, surfacing type/ depth (Lane and Shoulder), etc.*]
- ★ **Traffic Count:** Tabular form (New & Recon. = Initial year of construction and 20 years in the future) (3R = Initial year of construction and 20 years in the future for Concrete surfacing and full depth Asphalt surfacing or initial year of construction and 10 years in the future for Asphalt overlay).
- ★ **Design Standard:**
 1. New and Reconstructed - DR number, class, and terrain
 2. (3R) - design year traffic (Initial year of construction plus 20 years for Concrete surfacing and full depth Asphalt surfacing or 10 years for Asphalt overlay).
 3. On Priority Commercial System?
 4. On National Highway System?
- ★ **Crash History Analysis:** Include a statement such as "Traffic Engineering has performed a review and analysis of the crashes on this segment of roadway and as a result of this study have determined that (1) no additional crash mitigation measures are necessary, (2) the following mitigation measures will be incorporated in the project, or (3) additional study is necessary at the following locations to determine the appropriate mitigation measures. The full details of the Traffic Engineering report are in the project file."
- ★ **General:** Date of the plan-in-hand and persons present
- ★ **Bridges:** Proposed work and condition of bridges (Include "HS" (operating) rating of bridges to be used in place or reconstructed). Access through CICS1, Option 2 (Bridge Inventory and Rating System), Screen 07 (Bridge Load Rating).
- ★ **Agreements:** List agreements required and city participation if required
- ★ **Balance Factor:** Balance factor recommended by the District
- ★ **Material Needed:** Note "Project is balanced" or where borrow may be available
- ★ **Accommodation of Traffic:** (Exhibit E)
 - Detour used – use highway #'s and reference posts
 - Phasing
 - Temporary Road location and design
 - Traffic affected adversely enough to be classified a "Significant Project" (*Page L-5*)
- ★ **Constructability Issues:** If any (Exhibit E)
- ★ **Items left to be Determined from the Scoping Document:** e.g. "Grading from the hinge point may be required for the following work (Roadway Design will make a determination at the Plan-in-Hand):"
- ★ **Changes:** Major changes to the Scoping Document and any changes to the plan-in-hand plans [Incl. est. cost of changes (*Line shifts etc*)]
- ★ **Right-of-Way:** ROW will be required and est. # of tracts. Lot corner establishment: contract item? Access Control Committee recommendation
- ★ **Relocation Assistance:** Relocation assistance or building removal will be required
- ★ **Miscellaneous:** Shelterbelt or irrigation well removals, pivot interference, special access consideration, drainage, channel changes, median surfacing, etc.
- ★ **Snow Control:** If any (4:1 backslope, living snow fence, wider ditch, etc.)

- ★ **Relinquishments:** Potential highway relinquishments to county or city
- ★ **Roadside Development:** Type of seeding, erosion control and present or future landscaping plan
- ★ **MS4:** Project located in an MS4 Community? Stormwater Treatment assessment required? Specify if Treatment BMPs will be included in the project.
- ★ **Public Meetings:** Anticipated public hearings and/or information meetings
- ★ **4F-6F Lands:** Possible park or school land
- ★ **Historic Properties:** Possible impacts
- ★ **Signals:** Anticipated traffic signals.
- ★ **Lighting:** Anticipated lighting; intersection or continuous.
- ★ **Utilities:** Any unusual utility conflicts. Are stream gauge installations present? (*Update utilities shown on plans.*)
- ★ **Railroad:** Any railroad involvement on project or detour.
- ★ **Removals:** If Maintenance will remove guardrail or delineators: recommended by the District.
- ★ **Wetlands:** Possible wetlands, 404 permit, etc.
- ★ **Flood Plain:** Encroachment on FEMA flood plain (See Exhibit S for wording).
- ★ **Special Investigation:** Any areas requiring special investigation from other divisions.
- ★ **Construction Schedule:** Working days/ construction seasons. Request from the Final Plans Coordinator: Construction Division.
- ★ **Templates:** Connecting highway or street templates.
- ★ **Exceptions/ Relaxation of Standards:** Note requests for exceptions or relaxation of standards, Incl. supporting data. (*Note if "No exceptions are required"*).
- ★ **Hazardous Waste:** Note previous or existing gas stations, fuel storage sites, factories, landfills, substations, etc. - permit requirements?
- ★ **Safety Enhancements:** List safety enhancements (*Page K-4*).
- ★ **Accommodation of Bicycles and Pedestrians:** If bicycle paths will be included on this project, briefly note where: Bicycle path... station to station on the south side. If bicycle paths will not be included, briefly mention items that will improve bicycle travel such as new surfacing, surfaced or widened shoulders.
- ★ **Curb Ramps & Sidewalks:** Note whether curb ramp and sidewalk construction will be included on the project. For example: "Curb ramps and sidewalks are in place and will not be included with this project" or "Curb ramps will be included and blended to the sidewalks where required within the project limits."
- ★ **ADA Access During Construction:** See Chapter Ten of the RDM, Section 10.B.7.
- ★ **Retaining Walls:** Height, Length, and location, or "None anticipated".
- ★ **Airport:** Airports within four miles of the project.

Note: Headings with a ★ must have comments on all projects.

Wetlands/ Environmental Issues: Following the plan in hand inspection, if there are changes to the project, the designer will meet with the Environmental Program Manager or his/her representative to review the changes and to determine if changes to the pre-permit application consultation process will be necessary.

Attachments:

1. Location Map
 2. Scoping Document (for approval routing only, without the Accidents)
 3. Purpose and Need Statement (for approval routing only)
 4. Project Description (for approval routing only)
 5. DR Form 76, "Principal Controlling Design Criteria" (for approval routing only)
 6. Miscellaneous
- Note:** DO NOT INCLUDE the Accident Report (NOT EVEN for approval routing)

Give Location on Falcon for:

1. Purpose and Need Statement
2. Project Description
3. T&E Checklist

Plan-In-Hand Report Transmittal

Approval Routing:

1. Roadway Design Assistant Design Engineer #1
2. Roadway Design Assistant Design Engineer #2
3. Roadway Design Assistant Design Engineer #3
4. Roadway Design Assistant Design Engineer #4
5. Roadway Design Assistant Design Engineer #5 (*in charge of project*)
6. Roadway Design Assistant Design Engineer #6 [N. Sorben]
7. Roadway Design Engineer [J. Knott]
8. Traffic Engineer [D. Waddle]
9. Bridge Engineer [M. Traynowicz]
10. District - District Engineer
11. Roadway Design Assistant Design Engineer #6 [N. Sorben]
12. Roadway Designer Engineer [J. Knott]
13. Roadway Design Asst Design Engr. #5 (*in charge of project*)
14. Roadway Design Administrative Assistant [S. Schuelke]

Send Approved Copies To:

Bridge Engineer [M. Traynowicz]
Communication- Public Involvement Coordinator/Hwy. Commission Secretary [S. Kugler]
Construction-Final Plans Coord. [Frank Brill]
Materials & Research (2 copies) [M. Lindemann & B. Varilek through M. Syslo]
Project Scheduling & Program Management (2) [A. Starr]
Planning & Project Development- Div. Head (2) [M. Owen]
P & PD Scoping & Utilities Engineer [B. Neemann]
P & PD Wetlands Mgr. [T Ringenberg]
P & PD Roadside Stabilization Mgr [R. Poe]
Right Of Way Manager [B. Frickel]
ROW – Prop. Mgmt. Supervisor [T. Wicken]
ROW - Relocation Assistance [G. Weinert]
ROW Design Engr. (2) [D. Foreman]
P&PD Planning & Location Studies Engr. [J. Wilkinson]
Rail & Public Transportation - Railroad Liaison (*if applicable*) [T. Palmer]
Traffic Engineer [D. Waddle]
FHWA (2 copies) [J. Werning] (*if applicable*) Include a copy of the PIH Plans with comments
District (2 copies) - District Engineer
Project Manager
Include a copy of the PIH Plans with comments
City or County (*if applicable*)
Department of Aeronautics (*if applicable*)

Notify available on Falcon

P & PD - EPU/EDU Administrative Assistant [L. Ellison]
P&PD Environmental Section Mgr. [J. Jurgens]
P & PD - Traffic Counter Shop [S. Stroud]
RD - Lighting Engineer [C. Humphrey]
Rail & Public Transportation - Railroad Liaison [T. Palmer]

Safety Enhancements

Examples of safety enhancements on a project:

This list is not an exclusive list -- other items may be added if appropriate.

- New driving surface
- Widened shoulders
- Surfaced shoulders
- Updated guardrail
- Lateral obstacle removal
- Widened bridges
- Updated bridge curbs
- Widened driving lanes
- Improved vertical alignment
- Improved horizontal alignment
- 6:1 foreslopes
- Improved drainage
- Updated signing
- Added lanes
- Left-turn lane
- Right-turn lane
- Lighting
- Channelization
- Shoulder rumble strip/edgeline stripe
- Centerline rumble strip
- Beveled edge
- Removed/Improved skewed intersections
- Signalized intersections
- Closing driveways on radius
- Improve safety at railroad crossings
- Separate bicycle paths
- Sidewalk/ Pathways
- Grade separation
- Remove parking
- Living snow fence
- Improved surfacing
- Curb ramps will be built
- Existing curb ramps will be upgraded to current ADA standards or rebuilt

Guidelines for Addressing Work Zone Safety and Mobility: Identification of “Significant Projects”

A projects' affect on the flow of traffic through the work zone is critical to the success of the project in the public's perception. Projects which have the possibility of congesting traffic beyond acceptable delays may be considered a “significant project”. *Note that only 3 projects in the 2007 fiscal year would've required this designation.*

A project may be labeled “significant” because it is:

- (A) *Located within the boundaries of the Transportation Management Areas (TMA) of Omaha and Lincoln and the project is expected to occupy a location for more than three (3) days with either intermittent or continuous lane closures."*

or

- (B) 1. *Project Characteristics - to include but not be limited to: project type, type of work zone (full closure, lane reductions, cross-overs, night work, etc.), project schedule, area type (urban, suburban, rural).*
2. *Travel and Traffic Characteristics - to include but not be limited to: traffic volumes, seasonal and temporal variations, vehicle mix, type of travel (commuter, tourist, freight), public and private access, special events, impacts of weather.*
3. *Work Zone Characteristics - to include but not be limited to: impacts on local and regional transportation networks, capacity issues, level of public interest, number of travelers impacted, expected safety impacts, expected delays, impacts on nearby commercial, public, and private facilities and properties.*

or

- (C) Because the District Engineer so designated it.

(For additional information see Section 4 of “Guidelines for Addressing Work Zone Mobility and Safety”).

This “Significant Project” designation requires:

- A decision at the Plan-In-Hand (PIH) & inclusion in the PIH Report.
- The Traffic Control Engineer will determine whether a project is “significant” or not prior to and reconfirm after the PIH & include the decision reached in the PIH report.

Public participation **will be required** when a project is declared a “Significant Project”. (For additional information see Section 5 of “Guidelines for Addressing Work Zone Mobility and Safety”).

PS&E Turn-in Sheet: Check the box reading “Work Zone Significant Project Spec. (final Plans)”. This means that the project will include a special provision that refers to a Traffic Control Plan and other items that will need to be taken care of during the project.

NEBRASKA DEPARTMENT OF ROADS

**GUIDELINES FOR ADDRESSING
WORK ZONE MOBILITY AND SAFETY**

JOHN CRAIG, DIRECTOR

**MONTY FREDRICKSON, DEPUTY DIRECTOR – ENGINEERING
JOHN JACOBSEN, DEPUTY DIRECTOR -- OPERATIONS**

Nebraska Department of Roads Mission Statement

“We provide and maintain, in cooperation with public and private organizations, a safe, reliable, affordable, environmentally compatible, and coordinated statewide transportation system for the movement of people and goods.”

In keeping with this mission statement, the Nebraska Department of Roads is committed to developing, implementing, and improving these guidelines as a means to provide an adequate level of service and work zone safety for motorists and highway workers alike.

SECTION 1 – PURPOSE

(23 C.F.R § 630.1002)

In keeping with the mission of the Department of Roads, these guidelines for addressing work zone mobility and safety have been adopted so that reasonable effort is made --- from inception of the project to construction and final acceptance --- to accommodate the safety and mobility of all workers and travelers in our work zones for which the Department is responsible, including federal and local projects.

This guide was developed by a multi-disciplinary team including representatives of the Nebraska Department of Roads and the Federal Highway Administration. This document is a guide and is intended for use as a resource document.

SECTION 2 – DEFINITIONS AND TERMS

(23 C.F.R § 630.1004)

Design Process Outline (DPO) --- A summary of major activities (tasks or work categories) to be completed during the course of a project's design.

Highway Workers --- Include, but are not limited to, personnel of the contractor, subcontractor, DOR, local agencies, utilities, and law enforcement, performing work within the right-of-way of a work zone.

Mobility --- The ability to move from place to place and is significantly dependent on the availability of transportation facilities and on system operating conditions. With specific reference to work zones, mobility pertains to moving road users efficiently through or around a work zone area with a minimum delay compared to baseline travel when no work zone is present, while not compromising the safety of highway workers or road users. The commonly used performance measures for the assessment of mobility include delay, speed, travel time and queue lengths.

Safety --- A representation of the level of exposure to potential hazards for users of transportation facilities and highway workers. With specific reference to work zones, safety refers to minimizing potential hazards to road users in the vicinity of a work zone and highway workers at the work zone interface with traffic.

Significant Project --- Generally, a project, whether alone or in combination with other projects nearby, that may cause sustained work zone impacts on such things as capacity, delay times, levels of service, congestion, etc. that are greater than what is considered tolerable or desirable --- based on policy and/or engineering judgment.

Surveillance of Temporary Traffic Control Devices --- A contractor-managed pay item utilized to compensate the contractor for the continuous (24/7) monitoring and maintenance activities required in association with the work zone traffic control on the projects. Contractor employees assigned to these tasks require training and certification by the Contractor.

Traffic Control Plan (TCP) --- A plan used for facilitating road users through a work zone or an incident area.

Traffic Control Management (TCM) --- A contractor-managed pay item which normally requires three daily inspections of the work zone, monitoring of corrective action required, and documentation of the inspections made and corrective action taken. Contractor employees assigned to these tasks require training and certification by the Contractor.

Transportation Management Plan (TMP) --- An organized strategy to manage the work zone impacts of a project. Its scope, content, and degree of detail will vary depending on project requirements, these guidelines, and the anticipated impacts of the project on the traveling public.

Transportation Operations Component (TO) --- That component of a Transportation Management Plan (TMP) that identifies strategies that may be used to mitigate impacts of the work zone on the operation and management of the transportation system within the work zone impact area.

Work Zone --- An area within the right of way of a highway with construction, maintenance, or utility work activities. A work zone is typically marked by signs, channelizing devices, barriers, pavement markings, and/or work vehicles. It extends from the first warning sign to the END ROAD WORK sign. In the case of mobile operation it extends from the first warning sign or identifiable warning light to the last temporary control device.

Work Zone Crash --- A traffic crash in which the first harmful event occurs within the boundaries of a work zone or on an approach to or exit from a work zone, resulting from an activity, behavior, or control related to the movement of the traffic units through the work zone. This includes crashes occurring on approach to, exiting from or adjacent to work zones that are related to the work zone.

Work Zone Impacts --- Work zone-induced deviations from the normal range of transportation system safety and mobility. The extent of the work zone impacts may vary based on factors such as, road classification, area type (urban, suburban, and rural), traffic and travel characteristics, type of work being performed, time of day/night, and complexity of the project. These impacts may extend beyond the physical location of the work zone itself, and may occur on the roadway on which the work is being performed, as well as other highway corridors, other modes of transportation, and/or the regional transportation network.

Additionally, the Department includes the following acronyms in these guidelines:

AASHTO --- American Association of State Highway and Transportation Officials

ATSSA --- American Traffic Safety Services Association

CBD --- Central Business District

CFR --- Code of Federal Regulations

CMS --- Changeable Message Signs

DPO --- Design Process Outline

FHWA --- Federal Highway Administration

FR --- Federal Register

ITS --- Intelligent Transportation System

MAPA --- Metropolitan Area Planning Agency

MUTCD --- Manual on Uniform Traffic Control Devices

PI --- Public Information

PS & E --- Plans, Specifications, and Estimates

TCM --- Traffic Control Management

TCP --- Traffic Control Plan (same as TTC --- Temporary Traffic Control)

TMA --- Transportation Management Area

TMP --- Transportation Management Plan

TO --- Transportation Operations

SECTION 3 - STATE-LEVEL PROCESSES AND PROCEDURES (23 C.F.R § 630.1008)

(a.) Section Description

This section addresses the Department's state-level processes and procedures for work zone assessment, work zone data, training, and periodic evaluations (process reviews).

(b.) Work Zone Assessment and Management

The Construction Division's Final Plans Section reviews all plans for constructability, establishes time allowances, and estimates the signing quantities for each project. These tasks should be accomplished with consideration given to the standard or special traffic control plans developed by Traffic Engineering Division and any phasing plans developed by the Roadway Design Division. The Final Plans Section, in consultation with the Traffic Engineering Division, may make additions or deletions to the various plans when appropriate and necessary.

The Final Plans Section writes "Special Prosecution and Progress" specifications, when needed, which relate to traffic control. These special provisions address incentives/disincentives, internal District liquidated damages, peak hours, lane closures, and phasing required for the construction of the project where applicable.

This work is accomplished in collaboration with the District involved, the Roadway Design Division, and the Construction Division, by considering such factors as traffic volumes, anticipated delays, detour routes, the need to maintain two lanes of traffic on multilane facilities, and impacts to communities, schools, and emergency services.

Throughout the design process of a project, the Final Plans Section is available for project review to determine preliminary time allowances, assess constructability issues, and discuss phasing and traffic control. This preliminary review process is part of the Design Process Outline (DPO).

For projects that do not go through the Roadway Design Division (such as pavement rehabilitation projects generated in the Materials & Research Division), the Traffic Engineering Division determines the applicable standard or special traffic control plans. The Final Plans Section, in cooperation with the District and Traffic Engineering Division, determines the signing quantities, phasing, peak hours, or special prosecution/progress specifications that may be required.

The Department may utilize "Traffic Control Management" or "Surveillance of Temporary Traffic Control Devices" in addition to the standard and/or special traffic control plans. Each District, in cooperation with the Construction Division, determines whether to use "Traffic Control Management", "Surveillance", or just the normal traffic control methods provided by the Plans and Specifications. This determination is done just prior to the Final Plans Section review.

(c.) Work Zone Data

The Accident Records Section of the Traffic Engineering Division collects work zone crash data.

The Traffic Engineering Division summarizes the information received and processed by the Highway Safety Section and then prepares and distributes a Work Zone Accident Report Summary to the Districts on a monthly basis. The District project managers and other District staff are then expected to address any work zone mobility and safety issues by reacting to the Work Zone Accident Report Summary and making field observations of travel speed, delays, and other factors which might affect travel through the work zone.

Whenever the District's review and analysis of the work zone and Work Zone Accident Report Summary identifies opportunities for improvement or results in positive changes to work zone safety and mobility, the nature of the findings or improvements are communicated to the Traffic Engineering and/or Construction Divisions, or others as appropriate.

Additionally, the Department utilizes work zone crash data as one of its own performance measures. The work zone crash data shall be available for use during work zone process reviews and used as a tool to improve traffic control plans and guidelines.

(d.) Training

The Department currently generates the forms used to report crash data and provides to law enforcement some limited training on the proper and consistent collection of work zone crash data. The Department monitors the crash data being collected and pursues additional training for law enforcement if it is deemed necessary by the Department.

The Department provides appropriate training for employees involved in the development, design, implementation, management, and inspection of work zone-related transportation management and traffic control. The Department to the extent practical maintains a record of required training provided and provides appropriate training updates when necessary. Additionally, the Department will provide other training when necessary by the Department or the Federal Highway Administration (FHWA).

The Department selects training which is compatible with the needs involved and the class and position of employees to be trained. The Department avails itself of on-the-job training by peers and supervisors, electronic media presentations, and large and small group presentations, or at informal safety meetings.

Department personnel actively involved in the workzone (project managers, key inspectors, etc.) are encouraged to complete flagger and Assistant Traffic Control Manager certification training.

District personnel involved in the review and analysis of the monthly Work Zone Accident Report Summaries and District personnel responsible for implementing and monitoring the Traffic Management Plan on a significant project will, when available, attend American Traffic Safety Services Association (ATSSA) training for Traffic Control Technicians or Traffic Control Supervisors. Certification from ATSSA is not required.

Additionally, for positions or circumstances requiring more formal training, the Department will either provide appropriate in-house training or arrange for training which may be available from the Federal Highway Administration, (including National Highway Institute), ATSSA, or other outside training sources as needed.

When appropriate, the Department will make its training available to contractors.

By specification, the Department requires training and certification of contractor employees utilized as flaggers. The Department enforces the specification and provides training and certification materials as appropriate.

When provided in the Proposal, the Department requires that the contractor assign an individual as a Traffic Control Manager. Assistant Traffic Control Managers may be assigned and utilized by the contractor to perform required tasks on the project. The Department establishes training and certification requirements for Traffic Control Managers and Assistant Traffic Control Managers, enforces the specifications and provides training and certification materials as appropriate.

The Department utilizes Traffic Control Management or a similar level of traffic monitoring on significant projects. In so doing, the contractor's designated Traffic Control Manager will have received training in the implementation and monitoring of the Traffic Management Plan.

The Construction Division maintains (for the period of their respective certifications) a database of individuals (non-NDOR employees) who have been trained, certified, and reported as having completed the training and certification requirements for Flaggers and Assistant Traffic Control Managers. The Human Resources Division maintains a database of Department employees who have received flagger training.

(e.) Process Reviews

The Traffic Engineering Division, in partnership with the FHWA, conducts an annual statewide work zone inspection and process review. Construction and appropriate District personnel may be included in the reviews.

Observations made during the inspection and process review are summarized and analyzed by the Traffic Engineering Division and then shared with the Districts involved. The information is used to evaluate current work zone procedures and make recommendations for improvements.

Additional process reviews may be conducted in concert with the FHWA when deemed necessary.

SECTION 4 – SIGNIFICANT PROJECTS

(23 C.F.R § 630.1010)

(a) Acknowledgement of Significant Projects

The Department acknowledges that some projects, whether alone or in combination with other concurrent projects nearby, may cause sustained work zone impacts that are greater than what is considered tolerable or desirable --- based on policy and/or engineering judgment. These projects shall be identified as “significant projects”.

(b.) Identification of Significant Projects

A project is considered a "Significant Project" when it will impede traffic by closing lanes for several days, or restricting width to the point that it slows traffic enough to cause delays and as described below.

Based on their experience and considering the criteria identified in 630.1010 (c.) below, each District Engineer identifies on the DR Form 73, Highway Improvement Programming Request, their recommendation as to whether a programmed project should be significant.

The Project Scheduling & Program Management Section, in consultation with the District Engineer and other Divisions and by evaluating one or more of the criteria referenced in 630.1010(c), shall make the initial determination of whether a project is to be identified as a “significant project” as it relates to Subpart J of 23 CFR Part 630.

A final determination of significance shall be made during the Plan-in-Hand inspection.

(c.) Criteria for Identification of Significant Projects

In addition to other projects that may qualify, the Department shall identify all projects on the Interstate System that are located within the boundaries of the Transportation Management Areas (TMA) of Omaha and Lincoln as “significant projects” if they are expected to occupy a location for more than three (3) days with either intermittent or continuous lane closures.

The TMA limits for Omaha include all of I-680, all of I-480, and that portion of I-80 between Highway N-50 and the Missouri River. The TMA limits for Lincoln include all of I-180 and that portion of I-80 from 1 mile west of the NW 48th Street Interchange to 98th Street (1 mile west of the Waverly interchange). These limits are current as of 2007, but are subject to periodic review. The Metropolitan Area Planning Agency (MAPA) or the Lincoln/Lancaster County MPO should be consulted to verify the current TMA limits for Omaha and Lincoln.

Additionally, using the following criteria, the Department, including the District Engineer's initial assessment, will review other non-Interstate projects on the freeway or expressway system, projects located in a central business district or a major metropolitan area, and any other major projects to see if their work zone impacts are expected to be greater than what is considered tolerable. These projects may also be identified and treated as “significant projects”.

Potential Criteria for Assessing the "Significance" of a Project:

1. Project Characteristics --- to include but not be limited to: project type, type of work zone (full closure, lane reductions, cross-overs, night work, etc.), project schedule, area type (urban, suburban, rural).
2. Travel and Traffic Characteristics --- to include but not be limited to: traffic volumes, seasonal and temporal variations, vehicle mix, type of travel (commuter, tourist, freight), public and private access, special events, impacts of weather.
3. Work Zone Characteristics --- to include but not be limited to: impacts on local and regional transportation networks, capacity issues, level of public interest, number of travelers impacted, expected safety impacts, expected delays, impacts on nearby commercial, public, and private facilities and properties.

(d.) Exceptions

When the Department's analysis of a project on the Interstate System indicates that the work will not cause sustained work zone impacts, though otherwise meeting the criteria identified in 4c., the Department may request from the FHWA an exception to the applicability of 5b.2 and 5b.3 by showing that the project does not, in fact, cause sustained work zone impacts.

SECTION 5 – PROJECT LEVEL PROCEDURES (23 C.F.R § 630.1012)

(a.) Section Description

This section provides guidance and establishes procedures to manage the work zone impacts of individual projects.

The Department addresses the traffic concerns on the Plan-In-Hand. While some Interstate projects can maintain two lanes of traffic, the majority of projects maintain one lane of traffic. Some projects use detours or phasing to maintain traffic at acceptable levels.

(b.) Transportation Management Plans – Mandate for Significant Projects

For projects determined to be significant, the Department will develop a Transportation Management Plan (TMP) which consists of a Traffic Control Plan (TCP), a component to address Transportation Operations (TO), and a component to address the dissemination of Public Information (PI). In general, the construction project manager is designated as being responsible for monitoring the TMP.

For individual projects or classes of projects determined not to be significant, only a TCP is required. However, TO and PI components may be considered and utilized on any project.

(b.1.) Traffic Control Plans

The Department prepares a TCP for every project where traffic is affected. TCP's are consistent with the applicable provisions of the MUTCD, and the AASHTO Roadside Design Guide.

The selection of standard TCP's and any special plans are made by the Traffic Engineering Division and submitted to the PS&E Section for inclusion in the project plans. Standard and special plans included in the contract documents may be modified or supplemented by other site-specific plans prepared by the District Highway Project Manager (or a designee).

The project TCP, as described above, addresses phasing when appropriate and is updated and modified when circumstances dictate. On relatively simple and uncomplicated projects, the project manager may find it sufficient to utilize only the standard and special plans (if any) provided in the contract documents.

In the case of existing obstacles adjacent to the traveled way which may be encountered or affected during construction, the obstacles will be reviewed in regard to the posted speed, traffic volumes, and the length of time the obstacle may present a hazard in accordance with the Roadside Design Guide and a cost/benefit analysis. Based on the review, obstacles will then either be left in place, delineated or shielded as appropriate for the project.

(b.2.) Transportation Operations (TO) Component

Transportation Operations

On projects that have been determined to be significant, Transportation Operations (TO) strategies will be considered throughout the design process. The TO component of the TMP will include strategies that will be used to mitigate the impacts of the work zone on the operation and management of the highway system within the work zone impact area.

Transportation Operation strategies may include, but are not limited to:

1. Demand management,
2. Corridor/network management,
3. Work zone safety management, and
4. Traffic/Incident Management and Enforcement

The scope of the TO component will be determined by the project characteristics and the transportation operation and safety strategies identified by the Department.

1. Demand Management Strategies

Demand management strategies include techniques intended to reduce the volume of traffic traveling through the work zone by such methods as diverting travelers to alternate modes of transportation, shifting trips to off-peak hours, or shifting vehicles to alternate routes. When determining strategies to be used, the following may be considered:

- Transit Services – improvements, incentives, shuttles, residential/carpool, park and ride
- Ramp Metering, ramp closures
- Variable work hours; telecommuting

2. Corridor/Network Management Strategies

Corridor/network management strategies include strategies to optimize traffic flow through the work zone and adjacent roadways. The following traffic operations techniques and technologies may be considered:

- Maintaining existing number of through lanes
- Designing crossovers/shooflies for posted or 85th percentile speed
- Utilizing off-peak work hours
- Utilizing temporary traffic signals; monitoring signal timing/coordination
- Utilizing roadway/intersection improvements; turn lanes, bus turn outs
- Implementing traffic restrictions; turns, parking, trucks
- Implementing lane restrictions; trucks, reversible lanes
- Monitoring railroad crossing controls
- Coordinating with adjacent construction sites
- Utilizing automated work zones; detection systems, changeable message signs, highway advisory radio, web page, 511
- Various computer computations analyses (such as traffic modeling, Quickzone, etc.)

3. Work Zone Safety Management Strategies

Work zone safety management strategies include devices, features, and management procedures used to address traffic safety issues in the work zone. Work zone safety management strategies include:

- Reasonable speed limits through work area
- Temporary traffic signals
- Temporary traffic barriers – concrete protection barriers
- Impact attenuators/crash-cushions
- Intrusion alarms – warning lights
- Project task force/committee
- Work zone traffic control supervisors/inspectors
- Project partnering – weekly meetings
- Peer-to-peer work zone reviews
- Windshield surveys, night-time reviews

4. Traffic/Incident Management and Enforcement Strategies

Traffic/incident management and enforcement includes various strategies to manage work zone traffic operations. Work zone traffic management strategies involve monitoring traffic conditions and making adjustments to traffic operations based on changing conditions. Strategies in this area include:

- Automated work zones, traffic monitoring
- Transportation management centers, District Operations Centers
- Detecting and monitoring traffic for speed, volume, and density
- Traffic screens, glare screens
- Enhanced Reference Post markers
- Quick removal policies, push bumpers, hi-tech accident documentation
- Coordination with media
- Local detour routes
- Contract support for incident management
- Incident/emergency management coordination and response planning

- Utilizing automated work zones; detection systems, changeable message signs, highway advisory radio, web page, 511
- Law enforcement – cooperative, dedicated, or overtime
- Double fines for speeding

The strategies identified above are not all inclusive. Other strategies may be used.

While the Department is committed to implementing the appropriate strategies listed above on all projects determined to be “significant”, many of these strategies may be implemented on other projects having a “less significant” impact on work zone safety and mobility.

(b.3) Public Information (PI) Component

The Department makes a conscious effort to gather and share information regarding current and future projects with the public.

For projects identified as being “significant”, the individual Districts take the lead in advising the Communication Division that the project is likely to be significant and that some special efforts may be needed to enhance the distribution of public information. The Districts provide as much lead time as possible.

The Department, through collaboration with other agencies, considers one or more of the following strategies when establishing a public information plan for an individual project. Each project is considered on its own merits in evaluating the types of strategies utilized and the extent to which resources are expended on them.

- Participation in National Work Zone Awareness Week activities.
- Maintenance of the Department of Roads website. (The website is available to disseminate information both prior to and after the letting of a project.)
- Publication and distribution of various printed materials (flyers, doorhangers, newsletters, special mailings, etc.)
- Issuance of news releases to the media
- Placing project information on the “511” system.
- Conducting public information meetings at scheduled times throughout the life of a project.
- Deploying and employing various ITS options (e.g. Dynamic Message Signs).
- Utilizing paid advertising in the media, when justified and appropriate (this would include both print and electronic media).
- Utilizing free media advertising when available.
- Establishing a project-specific “hot line” when appropriate.
- Participate in public outreach whenever possible and appropriate (appearances at organizational meetings, public gatherings, etc.)
- Develop project-specific art work and graphics to identify special projects.

The individual Districts responsible for the projects involved, along with the Communication Division, monitors the results of the public information effort by surveying Department personnel and affected local agencies and individuals. Public information strategies may be modified as necessary.

(b.4.) Implementation of TMP with Stakeholders

The Department seeks the input of and keeps all affected agencies and individuals aware of the key details in the TMP and also encourages their continued involvement in the process.

It is understood that the actual list of stakeholders identified for any project will be unique, and it is not possible to outline the make-up of the list until the project is developing. However, the Department maintains a role in the functioning of the transportation management teams in the Omaha and Lincoln areas providing an ongoing involvement in the development of TMPs affecting most significant projects.

Current Inter-Agency Transportation Management Teams:

1. The Omaha "Transportation Systems Management" (TSM) Committee is represented by engineers and managers from the Nebraska Department of Roads District and Central headquarters; Nebraska State Patrol; the City of Omaha Public Works Department, Police, Fire, and Transit Divisions; Douglas County and Sarpy County; Omaha Public Power District (OPPD), FHWA and the Metropolitan Area Planning Agency (MAPA). This group meets quarterly to discuss, coordinate, and mitigate the impact of road construction projects scheduled by the various jurisdictions. The TSM committee is led by the District 2 Office of the Nebraska Department of Roads.
2. The Lincoln "Transportation Liaison Committee" (TLC) is represented by engineers and managers from multiple agencies in the Lincoln area. Included in this committee are representatives from the Nebraska Department of Roads, District and Central Headquarters, FHWA, the City of Lincoln Public Works, Lancaster County and the Lincoln Electric System (LES). This committee meets bi-annually to discuss, coordinate, and mitigate the impact of road construction projects scheduled by the various jurisdictions. The Lincoln TLC is led by the City of Lincoln.

(c.) PS&E Requirements for TMP

The Department is responsible for the TMP. Contractors shall not be responsible for its development.

The Department identifies in the contract Proposal that the project is significant, and or identifies specific components of the TMP that are required for the project. Special provisions, special plans, and references to other pertinent documents are considered part of the TMP even if not separately identified and labeled as such. Items in the TMP that are the Department's sole responsibility are not included in the Proposal.

(d.) Method of Payment

In general, the Department utilizes method-based specifications for traffic control items. The Department's Standard Specifications do contain some isolated guidance that could be construed as "performance-based" (e.g., a pilot car is expected to make a round trip through a construction zone in 15 minutes). However, the Department utilizes individual pay items in the contract to pay for traffic control operations and devices. In some instances, payment for certain devices may be made subsidiary to others. For example, payment for the standard set of warning signs required for a flagging operation is subsidiary to the pay item, "Flagging".

Unless some project-specific special circumstances dictate, no specific items will be established to pay for implementation of the TMP. It is the Department's practice that payment for individual traffic control devices and for items such as "Traffic Control Management" provides the necessary compensation.

(e.) Designation of Responsible Persons

Unless special circumstances dictate, the NDOR Project Manager assigned to the construction of a project has the primary responsibility for implementing and monitoring the TMP. The Contractor shall identify, prior to construction, to the Department's Project Manager the individual(s) responsible for guaranteeing that the contractor's responsibilities under the TMP are properly and promptly carried out.

SECTION 6 – IMPLEMENTATION
(23 C.F.R § 630.1014)

The Department acknowledges that its implementation of these guidelines is subject to review and reassessment annually. The Department is working in partnership with the FHWA Division office to implement its policies and procedures to improve work zone safety and mobility.

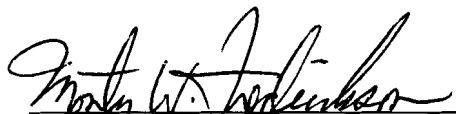
A copy of this document, or revised and amended copies thereof, shall be addressed in stewardship agreements with the FHWA.

SECTION 7 – COMPLIANCE DATE
(23 C.F.R § 630.1016)

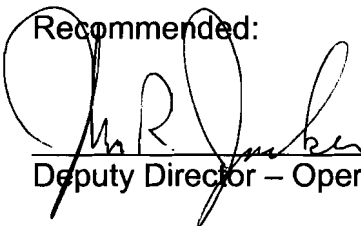
As of October 12, 2007 these guidelines shall be applied to all projects.

For projects that are in the final stages of development on or about October 12, 2007 and for which it can be demonstrated that complete compliance with these guidelines would create a significant negative impact upon their delivery, the Department agrees to request a variance, on a project-by-project basis, from the FHWA.

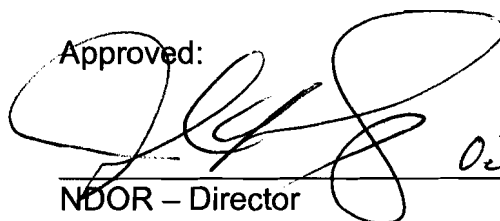
Recommended:


Deputy Director – Engineering 10/15/07
Date

Recommended:


Deputy Director – Operations 10-15-07
Date

Approved:


NDOR – Director Oct 17, 2007
Date

Approved:


FHWA Division Administrator 10/18/07
Date

Guidelines for Public Meetings

Project No.:		Control No.:	Flight No.:
Location:		Date of Flight:	Altitude:
Unit Head:	Designer:	Design Technician:	

We would like to hold the Public Hearing on or about _____

The dry run should be held **6** weeks prior to the date of the Public Hearing _____

The pre-dry run should be held approximately **10** days prior to the date of the Dry Run _____

Start the hearing preparation about 1 month prior to the pre-dry run. This meeting should be held before the PowerPoint slides have been setup. (Use hard copies to review.) The Unit Head, Designer, and the Design Technician should attend the Pre-Dry Run. (Dates)

Note: This means getting **everything** ready to go 3 months prior to the Public Hearing Date.

MOSAIC

Aerial Photos should be less than 2 years old at the time of the hearing, and represent current conditions, unless otherwise approved by the Unit Head.

The photos should be taken at an altitude of 4800' or less (*large mosaic scales requires lower flights*). If new flights are required, time must be allowed to schedule, fly, process, and scan the photos. Allow approximately 6 months for adverse weather and ground conditions.

Please consider the length of the project, complexity of the design and the sensitive nature of some items that may be disturbed. Try to keep the mosaic for Rural Projects under 20', ideally between 12' and 15'. For Urban areas, length is not the problem but if you use too large a scale the aerial display will be grainy. Make sure the scale of the display is the first thing that is discussed.

The mosaic scale will be 1" = 200', 1" = 100', or 1" = 50' (*1" = 20' is seldom used*).

Show the following items as indicated (to be determined by the Designer).

Slides Mosaic ☐ PowerPoint

- ☐ ☐ Proposed Roadway (*edge of pavement, surfaced, and nonsurfaced drives and intersections*)
- ☐ ☐ Legend, keep it simple.
- ☐ ☐ Labels, Highway, Streets, County Roads, Creeks/ Rivers, Railroads, Businesses, (*Section, Township, Range on Rural Projects Only*)
- ☐ ☐ North Arrow (usually North to the top or increasing stationing left to right)
- ☐ ☐ Bridges (*excluding - culverts and driveway culverts*)
- ☐ ☐ Driveways and Intersection (*including those that are to be closed*)
- ☐ ☐ Surfaced Shoulder (*usually shown*)
- ☐ ☐ Retaining / MSE Wall
- ☐ ☐ Barrier Curb
- ☐ ☐ Sidewalks
- ☐ ☐ Limits of Construction (LOC's) Lines (*Not Text*)
- ☐ ☐ Buildings to be removed
- ☐ ☐ Right of Way – Property, Section & ¼ Section lines, Corporate limits, & Property Owners (*usually shown*)
- ☐ ☐ Project Station Numbers (*usually 5's or 10's*)
- ☐ ☐ Project Centerline (*optional*)
- ☐ ☐ Roadway Obliteration
- ☐ ☐ Wetlands – Impacts and Potential Mitigation Sites
- ☐ ☐ Drainage Structures/ Driveway Culverts (*usually not shown*)
- ☐ ☐ Construction Phasing, if applicable (*not shown on mosaic but typical sections may be shown*)
- ☐ ☐ Other:
- ☐ ☐ Other:

Special Instructions:

Labeling: Label items that are mentioned in the hearing statement but not shown on the legend. Example: Temporary surfacing or future projects, etc.

Rural Projects: Normal slide coverage is 0.5 mile. A lengthy project that does not have much to talk about could go to 1 mile per slide. If 1 mile per slide is used remember to double the size of text, labels and scale. Remember other details are not going to show very well on the slides.

Urban Projects: Normal slide coverage is 1 to 3 blocks per slide, depending on the amount of detail that needs to be shown.

Note: Do not mix scales at random. Use 1 scale for Rural and 1 scale for Urban or enlarged slide for showing more detail.

- ☐ TITLE: Project Name, No., Location, and Time of the hearing
- ☐ LOCATION MAP: Note where the Project Begins, Ends and Route (Enlarge Highway No. & County Names) Tone down Sections/Co. Rds. on Rural projects and Streets on Urban Projects so they are not so busy and distracting
- ☐ PHOTOLOG: If Applicable (*to be determined by Designer and Unit Head*)
- ☐ TRAFFIC COUNT:

	Current Year	20 Years After the initial year of construction
	(ex. 2005)	(ex. 2028)
Cars Per Day		
% Trucks		
- ☐ ACCIDENT STATISTICS - Not included.
- ☐ TYPICAL CROSS SECTIONS: Only Show 1-Typical Section per Slide
- ☐ LEGEND: Keep it simple. (*determined by Designer and Unit Head*) Please confer with the Design Technician, as some colors do not read well.
- ☐ AERIALS: Photos should not be more than 2 years old (*unless otherwise approved by the Unit Head*).
- ☐ DETOUR MAP: Show similar to Location Map. Note where detour begins, ends, and route. Enlarge Highway Numbers, County Names, and the appropriate labeling.
- ☐ ESTIMATED PROJECT COST: Include the city's share of project cost (*if required - determined by Designer and Unit Head.*)
- ☐ CLOSING: Do you want a closing slide?

Public Meeting Checklist

- ☐ Send the Highway Commission a Preliminary Hearing statement from the dry run.
- ☐ Schedule a meeting with the City Council prior to the dry run.
- ☐ Engineering Statement should note previous Public Hearing or Information Mtg.
- ☐ Mosaic placed on the internet (timing determined by Dist. Engineer & ADE).

- ☐ 1. Laptop, Copy of PowerPoint on CD (jump drive etc.) and extension cord. Check with the Public Involvement Coordinator on the extension cord.
- ☐ 2. Displays - Mosaic - Extra North Arrow...Etc. - Tape & X-acto knife to fix Mosaic
- ☐ 3. Tape & scissors to hang display
- ☐ 4. Box of long pins to hang display on cork-board
- ☐ 5. Plans – 4 full and 2 half-size sets
 - ☐ 2A's, Plan & Profile, & X-Sections.
- ☐ 6. ROW Plans (As-built ROW plans if ownership plans are unavailable)
- ☐ 7. Correspondence file
- ☐ 8. Copies of Environmental Impact Study (EIS)
- ☐ 9. 9x9 Air photos (include stereo and magnifying glasses)
- ☐ 10. 10 extra copies of the hearing statement
 - ☐ a. Send District Engineer a copy - prior to hearing
 - ☐ b. Send Highway Commission Secretary a copy
 - ☐ c. Send Hearings Officer a copy
 - ☐ d. Send Consultant a copy
 - ☐ e. Media

- ☐ 11. Fact Sheet – Receive from Public Involvement Coordinator (S. Kugler)
- ☐ 12. Engineer's Scale (large and pocket)
- ☐ 13. Calculator
- ☐ 14. Triangles
- ☐ 15. Note pad
- ☐ 16. Red & regular pencil and eraser
- ☐ 17. Standard Specifications for Highway Construction book
- ☐ 18. A Policy on Geometric Design of Highways and Streets (Green book)
- ☐ 19. Roadway Design Manual
- ☐ 20. Drainage Design and Erosion Control Manual
- ☐ 21. Turning templates
- ☐ 22. Circle/ radius templates
- ☐ 23. Pocket name tag and business cards
- ☐ 24. Pointer
- ☐ 25. Pen flashlight
- ☐ 26. Nebraska Minimum Design Standards
- ☐ 27. NDOR "Surface Transportation Program Book" (1-year and 5-year plan)
- ☐ 28. Traffic flow map (from Transportation Planning)

Public Hearing - Dry Run Invitation List

Do not schedule the Public Hearing until after the dry run is completed.
Others may be invited when appropriate.

- | | |
|--|---------------------------------------|
| Randy Peters (Director) | Thomas Goodbarn (District 1 Engineer) |
| * Khalil Jabber (Deputy - Engineering) | Tim Weander (District 2 Engineer) |
| Moe Jamshidi (Deputy - Operations) | Kevin Domogalla (District 3 Engineer) |
| Jill McAuliffe (Administrative Assistant - Director's Office) | Wes Wahlgren (District 4 Engineer), |
| Verneda Kelly (Administrative Assistant - Director's Office) | Doug Hoevet (District 5 Engineer) |
| | Gary Thayer (District 6 Engineer) |
| | Kurt Vosburg (District 7 Engineer) |
| | Mark Kovar (District 8 Engineer) |
| * Jim Knott (Roadway Design - Division Head) | |
| Kevin Donahoo (Roadway Design - Hydraulic Engr.) | |
| Bob Carnazzo (Hydraulic Unit Head) | |
| Julie Wells (Environmental Liaison Engr.) | |
| Phil TenHulzen, (Roadway Design - Standards Engineer) | |
| Lorraine Legg (Assistant Design Engineer) | |
| Chris Lutz (Unit Head - Expressway) | |
| Toby Fierstein (Unit Head - Expressway) | |
| Jennifer Thompson (Design Consultant Coordinator) | |
| Terry Gibson (Assistant Design Engineer) | |
| Brian Johnson (Unit Head - Interstate) | |
| Jeff Johnston (Unit Head - Interstate) | |
| Nathan Sorben (Assistant Design Engineer) | |
| Pat Brunken (Hwy. Design Plans Manager) | |
| John Thomas (Assistant Design Engineer) | |
| Lonnie Huebert (Design Consultant Coordinator) | |
| Brendon Schmidt (Unit Head - Resurfacing) | |
| Carl Humphrey (Lighting/Urban Engineer) | |
| Syed Ataulah (Assistant Design Engineer) | |
| Tony Kessler (Design Consultant Coordinator) | |
| Kevin Krolkowski (Unit Head - Rural) | |
| Jodi Kocher (Unit Head - Rural) | |
| Amy Starr (Project Scheduling & Program Management) | |
| Mary Jo Oie (Manager - Communication) | |
| Sarah Kugler (Public Involvement Coordinator/Highway Commission Secretary) | |
| Dan Waddle (Traffic Division Head) | |
| Claude Oie (Construction Division Head) | |
| John Miller (Construction – Hwy. Estimating) | |
| Mike Owen (Planning & Project Development (P&PD) - Division Head) | |
| Jim Wilkinson (P&PD- Location Studies Engineer) | |
| Randy ElDorado (P&PD - Agreements Engineer) | |
| Jason Jurgens (P&PD - Environmental Section Mgr.) | |
| Tony Ringenberg (P&PD - Highway Wetlands Manager) | |
| Jon Barber (P&PD - Environmental Analyst Supervisor) | |
| Brandie Neemann (P&PD –Scoping & Utilities Engineer) | |
| Mark Traynowicz (Bridge Division Head) | |
| Bob Frickel (ROW Division Head) | |
| Dan Foreman (ROW Design Engineer) | |
| Ryan Huff (Rail and Public Transportation Engineer) | |
| Mick Syslo (Materials and Research Division Head) | |
| Mark Osborn (Roadway Asset Mgmt. Engineer) | |

Contact the District Engineer before scheduling the Dry Run and ask if he/she is interested in attending.
Schedule the dry run accordingly.

* When scheduling the dry run, make sure the people with an * are available, include your Assistant Design Engineer.

Outlook Address: DOR RD-Dry Run

**PROJECT STATEMENT
FOR THE STATE HIGHWAY COMMISSION MEETING
HELD ON**

THE NEBRASKA DEPARTMENT OF ROADS IS REQUESTING APPROVAL OF THE
(LOCATION, DESIGN FEATURES, ACCESS CONTROL, ETC.) FOR:

PROJECT NO.
LOCATION:
CONTROL NO.

THE PROJECT IS LOCATED IN _____ COUNTY ON HIGHWAY _____, IT BEGINS AT
MILE POST _____ AND EXTENDS _____ FOR _____ MILES.

BASED ON CURRENT PRICES THE ESTIMATED PROJECT COST IS \$ _____.

THE PROPOSED IMPROVEMENT WILL INCLUDE _____.

ADDITIONAL RIGHT-OF-WAY _____ BE NEEDED.

RELOCATION _____ BE NECESSARY.

RECLASSIFICATION AND RELINQUISHMENT OF SEGMENTS OF THE EXISTING
HIGHWAY _____ BE NECESSARY.

ACCESS CONTROL _____ BE REQUIRED.

AN OPPORTUNITY FOR A PUBLIC HEARING WAS OFFERED BUT NO REQUESTS
WERE RECEIVED.

OR

AN OPPORTUNITY FOR A PUBLIC HEARING WAS OFFERED, _____ RECEIVED,
LATER WITHDRAWN.

A DESIGN PUBLIC HEARING WAS HELD ON _____ IN _____, NEBRASKA. THE
PROJECT RECEIVED SUPPORT AT THE HEARING.

Note: Do not reference the hearing display until you have completed the above in a prepared
statement, then work through the hearing display with project specific issues.

Note: Include 8.5" x 11" Location Map when this is sent to the Highway Commissioners before
the meeting.

Note: Request that the Executive Secretary of the Highway Commission send a notice to the
local government(s) informing them of the Highway Commission Meeting.

FACT SHEET

PROJECT NO.

LOCATION:

CONTROL NO.

- | | | |
|--|----|----|
| 1. Traffic | 20 | 20 |
| Average Daily Traffic | | |
| Design Hourly Volume | | |
| % Heavy Trucks | | |
| 2. Design: | | |
| Roadway Width | , | |
| Median Width | , | |
| Shoulder Width | , | |
| Shoulder Surfacing | , | |
| Obstacle Clearance | , | |
| 3. Right-of-Way: | | |
| 4. Relocation: | | |
| 5. Lighting: | | |
| 6. Project Cost: \$ | | |
| 7. Presently Programmed for Fiscal Year: | 20 | |
| 8. Adjoining Project(s): | | |
| To | | |
| To | | |

Earthwork Checklist

See Chapter 7 of the RDM

Existing Surfacing - will it be removed, salvaged, or incorporated in the fill? Check with Materials and Research and the District Construction Engineer about payment for stockpiling and salvaging.

Undercut (Determination of Subgrade Elevation) - Account for surfacing, foundation course or soil aggregate base course. Compensate for shoulder material if necessary.

Balance Factor - Verify with DE or PIH report. Try to balance every mile.

Subgrade Slope on Shoulders - Same slope as driving lanes on full grading projects.

Subgrade on Superelevated Section - Verify against appropriate standard plan. Does the shoulder surfacing have a maximum 7% rollover?

Transitions to Superelevation - Does the roadway and shoulder superelevate properly - check transition distances.

Design Exceptions at Bridges - Does earthwork taper from abutment to flow line as designed by the bridge designer?

Roadway Cross-Sections - Are the slope break points at the appropriate locations?

Special Ditches - Shown on P&P sheets? When the ditch bottom is lower than the normal hinge point, verify that the 6:1 foreslope continues to the hinge point, and then breaks to a 4:1 or 3:1 at the required distance from centerline.

Intersections & Driveways - 10:1 transverse slopes within the clear zone? Do the foreslopes correspond to the criteria shown on plan "Typical Cross-Sections Rural Intersections and Driveways" (Standard/Special Plans Book). Pipe lengths match driveway slopes?

Guardrail Locations - Shoulder slope to 2' behind the surfacing & 5' beyond the last post. Transition the earthwork behind the guardrail from foreslope to bridge design.

Sand Barrel/ Concrete Barrier Placement - Check with Traffic Division for details of barrier placement.

Dikes - Are intercepting dikes shown on the cross-sections & sloped at 10:1 facing traffic within the clear zone? (Normally, embankment required for a dike is not multiplied by the balance factor).

Phasing - Show on cross-sections and earthwork for each phase.

Temporary Drainage - Check drainage for each phase.

Detours, Temporary Roads - Will grading for temporary roads or detours be required?

Borrow/ Waste Areas - Are these areas to be delineated or is it the contractor's responsibility if borrow is along the project.

Channel Changes - Determine if excavation should be included with the total excavation or split out as "channel excavation"; this is determined on a case-by-case basis.

Surcharges/Settlement - Check with Materials & Research Geotechnical Engineer.

Shoulder Construction/ Urban Areas - Do the cross-sections show the shoulder construction according to policy?

Earthwork Checklist – continued

Final Plans Checklist -

- ☐ A. Earthwork (balance points and quantities)
- ☐ B. Borrow pits
- ☐ C. Utility note
- ☐ D. Earthwork Blends at:
 - ☐ 1. Project ends
 - ☐ 2. Intersections & Drives
 - ☐ 3. Temporary Roads
- ☐ E. Special provisions
- ☐ F. Computations
- ☐ G. Sketches for construction items:
 - ☐ 1. Temporary Roads or Detours
 - ☐ 2. Dikes
 - ☐ 3. Culverts
 - ☐ 4. Borrow pit sites
- ☐ H. Cross-sections:
 - ☐ 1. Scale
 - ☐ 2. Ditch bottom elevations
 - ☐ 3. ROW

Preliminary R.O.W. Plan Review Meeting

(Clarity Task 5610)

Attendees List:

Attendance Required:	Invite, Attendance Not Required:
Assistant Right-of-Way Manager <u>or</u> Chief Appraiser (One or the other)	Roadway Design Division Engineer
Right-of-Way Design Engineer	Affected Assistant Design Engineers in Roadway Design Division
Unit Head	Utilities Section Coordinator
Supervisor	Right-of-Way Design Supervisor
Utilities District Coordinator	Lighting Design Engr. (if applicable)
Railroad Liaison (if RR is impacted)	P&PD Environ. Section Manager (if applicable)

Checklist of ROW items to be reviewed:

- | | |
|--|---|
| <input type="checkbox"/> Lateral clearance | <input type="checkbox"/> Lighting |
| <input type="checkbox"/> Utilities | <input type="checkbox"/> Traffic Signal Location |
| <input type="checkbox"/> Wetlands | <input type="checkbox"/> Guide Signs |
| <input type="checkbox"/> Access Control | <input type="checkbox"/> Impacts to Home/ Building/ Tree |
| <input type="checkbox"/> Borrow areas | <input type="checkbox"/> LOC for Rip-Rap/ Erosion Control |
| <input type="checkbox"/> Minimum of 2' behind Sidewalks | <input type="checkbox"/> Railroad Easements |
| <input type="checkbox"/> Overall ROW: Excessive or Tight | <input type="checkbox"/> Fill slope/ ditch bottom on our ROW? |
| <input type="checkbox"/> Drives: Construction area | <input type="checkbox"/> Room for the contractor to maneuver around a construction site |
| <input type="checkbox"/> Culverts: Construction & Cleanout | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Temp. LOCs: Drive/ Temp. Road | |

Document the decisions made and the responsible party, send to attendees and the Assistant Design Engineer.

Plans To Utilities

(Clarity Task 5614)

The Roadway Designer shall request that PDU plot the Utilities Plans. The plans sent to the Utility Coordinators will have sufficient detail for the utility companies to determine the impact to facilities (include 2L sheets if necessary to provide sufficient detail).

Roadway Design shall provide the most up-to-date details for, but not limited to:

1. Horizontal alignment
2. Vertical alignment
3. Drainage structures
4. Roadway cross sections
5. Culvert cross sections
6. Special designs (if there is utility involvement)
7. Detours, temporary roads, crossovers (final)
8. Frontage roads, side roads, etc.
9. Project location map
10. Limits of construction from project centerline to be used
11. Driveways and other accesses
12. Ditches (includes special ditches)
13. Sidewalks, bike trails
14. Medians, curbs and gutters, etc.
15. Embankment widening for guardrail installations
16. Dikes, dams, etc.
17. "Do Not Disturb" environmental areas
18. Wetlands mitigation
19. Removals
20. Driveway culverts
21. Lighting
22. Traffic signals
23. Overhead signs (include foundations)
24. Bridges & pedestrian structures
25. Retaining walls (approximate height and location including generic earth retaining wall)
26. All above and underground utility facilities (power, telephone, pipelines, gas, cable, TV, etc.)
27. Above ground utility structures (telephone poles, power poles, telephone pedestals, power pedestals, manholes, etc.) must have the station and offset from the centerline to be used.
28. Centerline crossing station of all underground pipelines.

Airway Highway Clearances

The **Federal Aviation Administration's (FAA)** regulations for airway highway clearances (<http://www.faa.gov/airports/central/engineering/part77/>) have been published as "Part 77, Federal Aviation Regulations". The **Federal Aviation Administration** requires written notification prior to construction in the vicinity of an airport in order to:

- Evaluate the effect of the proposed construction or alteration on the operation of the airport
- Determine the effect of the proposed construction or alteration on air navigation
- Identify mitigating measures
- Map the alteration

If required, FAA Form 7460-1, "Notice of Proposed Construction or Alteration", must be filed with the **FAA** at least 30 days before work starts and should be filled out during the Plan-in-Hand Phase of the project (Clarity Task #5380). All modifications, both permanent and temporary, are subject to the notice requirement. The designer will transmit this form to the **Nebraska Department of Aeronautics** for coordination with the **FAA**. This form may be found on the Internet at (http://www.faa.gov/documentLibrary/media/form/faa7460_1.pdf).

The **Nebraska Department of Aeronautics** should be consulted early in the design process for current regulations and notification requirements related to highway projects near civil and military airports and heliports and for information on future growth planned at the airport.

Conditions requiring the filing of FAA Form 7460-1:

- Any construction or alteration exceeding 200 ft. above ground level
- Any construction or alteration
 - Within 20,000 ft. of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3200 ft. in length
 - Within 10,000 ft. of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3200 ft. in length
 - Within 5000 ft. of a public use heliport which exceeds a 25:1 surface
- Any highway, railroad, or other transverse way whose prescribed adjusted height would exceed that above noted standards
- When requested by the **FAA**
- Any construction or alteration located on a public use airport or heliport regardless of height or location

Examples of Permanent Construction or Alterations:

- Structures
- Elevated Signs
- Fences
- Light Fixtures
- Power and Cable Lines
- Roadways

Examples of Temporary Construction or Alterations:

- Construction Equipment
- Haul Routes
- Staging Areas
- Stock Piles
- Temporary Lights

Additional Submittals to the Nebraska Department of Aeronautics:

- Plan of the proposed construction or alteration showing the relation to the nearest runway
- The perpendicular distance from the centerline of the nearest runway to the proposed construction or alteration
- The projected distance along the centerline of the runway to the proposed construction or alteration
- The ground elevation at the site of the proposed construction or alteration
- The height of the proposed construction or alteration
- Accurate geodetic coordinates conforming to NAD 83

PIH Report Floodplain Wording

MAPPED COMMUNITIES

Condition 1. Review of Floodplain Mapping shows that the project is located in a Mapped and Participating Community and crosses or overlaps upon Zone A Floodplains.

P-I-H Statement: Review of floodplain mapping shows that the project overlaps upon one or more mapped Zone A Floodplains. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Environmental Permits Unit for inclusion in a Permit Application.

Condition 2. Review of Floodplain Mapping shows that the project is located in a Mapped and Participating Community and crosses or overlaps upon Zone A Floodplains and Floodways.

P-I-H Statement: Review of floodplain mapping shows that the project overlaps upon one or more mapped Floodways. The project will be designed to assure that no increase in a Floodway's Base Flood Elevation occurs. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Environmental Permits Unit for inclusion in a Permit Application.

Condition 3. Review of Floodplain Mapping shows that the project is located in a Mapped and Participating Community and does not overlap upon any Floodplain or Floodway.

P-I-H Statement: Review of floodplain mapping shows that the project does not overlap upon a mapped Floodplain or Floodway. No floodplain certification or permit is required for this project.

Condition 4. Review of Floodplain Mapping shows that the project is located in a Mapped but Non-Participating Community and crosses or overlaps upon Zone A Floodplains.

P-I-H Statement: Review of floodplain mapping shows that the project overlaps upon one or more mapped Zone A Floodplains in a non-participating community. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Environmental Permits Unit for record retention. A Permit is not required.

NON-MAPPED COMMUNITIES

Condition 5. Review of Floodplain Mapping shows that the project is in a Non-Mapped and Non-Participating Community and crosses or overlaps upon Potential Zone A Floodplains.

P-I-H Statement: The project is located in a non-participating community with no floodplain mapping; State Minimum Standards apply. Review of topographic mapping shows that the project overlaps upon one or more Potential Zone A Floodplains. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Environmental Permits Unit for record retention. A Permit is not required.

Condition 6. Review of Floodplain Mapping shows that the project is in a Non-Mapped and Non-Participating Community and does not overlap upon a Potential Zone A Floodplains).

P-I-H Statement: The project is located in a non-participating community with no floodplain mapping; State Minimum Standards apply. Review of topographic mapping shows that the project does not overlap upon a Potential Zone A Floodplain. This project does not require a floodplain certification or permit.

BY EXPLICIT PERMISSION OF THE ROADWAY HYDRAULICS ENGINEER ONLY

Condition 7. Review of Project Scope and Plans shows that the project work Does Not Meet the Criteria for Development.

P-I-H Statement: Review of the project scope, project description and Plan-In-Hand Plans by the Roadway Design Hydraulics Engineer indicates that the project work has no potential to impact the Zone A Floodplains/Floodways it might cross, and does not meet the criteria for Development within a floodplain/floodway. Certification will not be required from the Roadway Design Hydraulics Section or the Bridge Hydraulics Section. A Permit is not required.

DEFINITIONS

Floodplain Mapping	<p>Flood Hazard Maps (FHM), Flood Hazard Boundary Maps (FHBM) or Flood Insurance Rate Maps (FIRM) accepted by the Federal Emergency Management Agency (FEMA) or created for review and acceptance by FEMA that show Special Flood Hazard Areas (SFHA) subject to inundation by the 1% Annual Chance Flood (100-yr Flood).</p> <p>Mapping is available at the FEMA web site or within the NDOR Intranet by following the “FLOODPLAIN MAP” short cut located at \\nebfile\design\dgnhyd\Flood Plain Cert.</p>
Potential Zone A Floodplain	<p>A drainage way in a Non-Mapped Community, which has a watershed area of more than 640 acres (one square mile) upstream of the point of interest (usually the highway).</p>
Mapped Community	<p>A Community (County, City or Village) which has Floodplain Mapping (FHM, FHBM, FIRM, or work maps) (see definition above).</p>
Non-Mapped Community	<p>A Community (County, City or Village) which does not have Floodplain Mapping (see definition above). State Minimum Standards apply within these Communities.</p>
Participating Community	<p>A Community (County, City or Village) which is participating in the National Flood Insurance Program (NFIP). A Participating Community regulates development activities, via ordinances and permits, which occur in floodplains (mapped or potential) within in its jurisdiction.</p> <p>A list of Participating Communities is maintained in the same locations as the Floodplain Mapping (see above).</p>
Non-Participating Community	<p>A Community (County, City or Village) which does not participate in the National Flood Insurance Program (NFIP). A non-participating community does not regulate development activities that occur in floodplains (mapped or potential) within in its jurisdiction.</p> <p>A list of Non-Participating Communities is maintained in the same locations as the Floodplain Mapping (see above).</p>
State Minimum Standards (paraphrased)	<p>No construction, improvement or obstruction shall be allowed in the floodplain unless it is demonstrated that the effect of the construction will increase the water surface elevation of the base (100 year) flood for a:</p> <ul style="list-style-type: none">• Zone A Floodplain - one foot or less (< 1.0 feet), and• Floodway – no rise (0.0 feet).

Abbreviations

ADA	Americans With Disabilities Act
ADE	Roadway Design Assistant Design Engineer
Bridge	Bridge Division
CA	Covenant Agreement
CADD	Computer Aided Drafting and Design
CICS	Customer Information Control System
Communications	Communications Division
Construction	Construction Division
CRA	Covenant Relinquishment Agreement
DCE	District Construction Engineer
DE	District Engineer
DPO	Design Process Outline
EA	Environmental Assessment
EIS	Environmental Impact Statement
FEMA	Federal Emergence Management Agency
FHWA	Federal Highway Administration
FONSI	Finding Of No Significant Impact
FRA	Final Relinquishment Agreement
M&R	Materials and Research Division
NDOR	Nebraska Department of Roads
NRD	Natural Resource District
PDU	Plan Development Unit in Roadway Design
PIH	Plan-In-Hand
P&PD	Planning and Project Development Division
PS&E	Plans, Specifications, and Estimates Section in Construction
PSS	Project Scheduling System
RD	Roadway Design Division
RDM	<u>Roadway Design Manual</u>
ROD	Record of Decision
R.O.W.	Right Of Way Division
SWPPP	Stormwater Pollution Prevention Plan
Traffic	Traffic Engineering Division

<http://www.transportation.nebraska.gov/roadway-design/consult-downloads/design-documentation/DPO.pdf>

DPO Exhibit Index

- A** Roadway Design/Environmental Coordination
- B** Design Checklist
- C** Public Meeting Checklist
- D** Access Control Meeting
- E** Constructability Issues
- F** Erosion Control Plan-In-Hand Checklist
- G** Covenant and Final Relinquishment Agreements Process
- H** Cost Estimate Checklist
- I** Distribution of Plans
- J** Plan-In-Hand Checklist
- K** Plan-In-Hand Report Outline
- L** Guidelines for Public Hearing / Checklist
- M** Dry Run Invitation List (for Public Hearings)
- N** Project Statement for the Highway Commission Meeting
- O** Earthwork Checklist
- P** Preliminary R.O.W. Plan Review Meeting Attendees List
- Q** Plans to Utilities
- R** Airway Highway Clearances
- S** PIH Report Floodplain Wording